Maricopa County
AIR QUALITY
DEPARTMENT

**Philip A. McNeely, R.G. Director**
Phone: 602.506.6701
Email: PhilMcNeely@mail.maricopa.gov

Maricopa.gov/AQ
CleanAirMakeMore.com

September 8, 2017

Mr. Misael Cabrera, Director
Arizona Department of Environmental Quality ("ADEQ")
1110 West Washington Street
Phoenix, Arizona 85007

RE: Revisions To Arizona's State Implementation Plan (SIP)

Dear Mr. Cabrera:

As the designated U.S. Environmental Protection Agency ("EPA") contact, the Maricopa County Air Quality Department ("MCAQD") hereby requests ADEQ to submit to the EPA for approval the enclosed revision to the Arizona SIP. The MCAQD is providing to ADEQ an electronic format (PDF) of this revision.

To bring the Arizona SIP up-to-date with current Maricopa County Air Pollution Control Regulations, the enclosed revision to the Arizona SIP rescinds (removes) from the Arizona SIP outdated rules and includes, as necessary, current rules. The MCAQD prepared this SIP revision in compliance with the federal Clean Air Act ("CAA") § 110, 40 CFR Part 51, including Appendix V, and relevant Arizona Revised Statutes ("A.R.S.").

If you have any questions, please contact Hether Krause, Manager of the Planning & Analysis Division, at (602) 506-6731 or hetherkrause@mail.maricopa.gov.

Sincerely,

Philip A. McNeely, R.G.
Director

Enclosures
Cc (email): Timothy Franquist Jr. – FranquistJr.Timothy@azdeq.gov, ADEQ
Natalie Muilenberg – Muilenberg.Natalie@azdeq.gov, ADEQ
Steckel.Andrew@epa.gov, EPA Region IX
Hether Krause – Hether.Krause@mail.maricopa.gov, MCAQD

**Maricopa County Air Quality Department**
Phone: 602.506.6010
Email: AQmail@mail.maricopa.gov

Maricopa.gov/AQ
CleanAirMakeMore.com

# REVISIONS TO ARIZONA'S STATE IMPLEMENTATION PLAN (SIP)

**Approved by the**

**Maricopa County Board of Supervisors**

**September 6, 2017**

## TABLE OF CONTENTS

## SECTION 1: INTRODUCTION

### 1.1 Purpose:

This State Implementation Plan ("SIP") revision, prepared by the Maricopa County Air Quality Department ("MCAQD"), and approved by the Maricopa County Board of Supervisors, is being submitted to the Arizona Department of Environmental Quality ("ADEQ") to submit to the U.S. Environmental Protection Agency ("EPA"), requesting the rescinding (removing) of the following SIP-approved Maricopa County Air Pollution Control Regulations from the Arizona SIP:

- SIP Rule 22 (Permit Denial-Action-Transfer-Expiration-Posting-Revocation-Compliance)
- SIP Rule 27 (Performance Tests)
- SIP Rule 28 (Permit Fees)
- SIP Rule 32.A (Odors and Gaseous Emissions)
- SIP Rule 32.B (Odors and Gaseous Emissions)
- SIP Rule 32.C (Odors and Gaseous Emissions)
- SIP Rule 32.D (Odors and Gaseous Emissions)
- SIP Rule 32.E (Odors and Gaseous Emissions)
- SIP Rule 32.F (Odors and Gaseous Emissions, Sulfuric Acid Plants)
- SIP Rule 32.G (Odors and Gaseous Emissions, Other Industries)
- SIP Rule 32.H (Odors and Gaseous Emissions, Fuel Burning For Producing Electric Power (Sulfur Dioxide))
- SIP Rule 32.J (Odors and Gaseous Emissions)
- SIP Rule 32.K (Odors and Gaseous Emissions)
- SIP Rule 34.A (Organic Solvents-Volatile Organic Compounds (VOC)
- SIP Rule 34.B (Organic Solvents-Volatile Organic Compounds (VOC), Degreasers, General Provisions)
- SIP Rule 34.C (Organic Solvents-Volatile Organic Compounds (VOC), Metal Cleaning Operations)
- SIP Rule 34.D.1 and D.2 (Organic Solvents-Volatile Organic Compounds (VOC), Dry Cleaning)
- SIP Rule 34.E (Organic Solvents-Volatile Organic Compounds (VOC), Spray Paint and Other Surface Coating Operations)
- SIP Rule 34.F (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.G (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.H (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.I (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.J (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.K (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.L (Organic Solvents-Volatile Organic Compounds (VOC), Cutback Asphalt)
- SIP Rule 35 (Incinerators)
- SIP Rule 41.A (Monitoring)
- SIP Rule 41.B (Monitoring, Continuously Monitoring and Recording Emissions)
- SIP Rule 42 (Testing and Sampling)
- SIP Rule 74 (Public Notification)
- SIP Rule 81 (Operation)

- SIP Rule 100 (General Provisions and Definitions), Section 108 (Hearing Board)
- SIP Rule 100 (General Provisions and Definitions), Section 500 (Monitoring and Records)
- SIP Rule 220 (Permits to Operate)
- SIP Rule 322 (Power Plant Operations)
- SIP Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources)
- SIP Rule 331 (Solvent Cleaning)
- SIP Rule 333 (Petroleum Solvent Dry Cleaning)
- SIP Rule 335 (Architectural Coatings)
- SIP Rule 336 (Surface Coating Operations)
- SIP Rule 340 (Cutback and Emulsified Asphalt)
- SIP Rule 510 (Air Quality Standards)

At the same time, the Maricopa County Board of Supervisors approved the MCAQD to submit to the ADEQ to submit to the EPA a request to approve the following Maricopa County Air Pollution Control Regulations into the Arizona SIP:

- Rule 100 (General Provisions and Definitions) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the New Source Review ("NSR") SIP
- Rule 210 (Title V Permit Provisions) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the NSR SIP
- Rule 220 (Non-Title V Permit Provisions) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the NSR SIP
- Rule 230 (General Permits) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the NSR SIP
- Rule 245 (Continuous Source Emission Monitoring) as revised and adopted November 15, 1993
- Rule 313 (Incinerators, Burn-Off Ovens, and Crematories) as revised and adopted May 9, 2012. Approved in the Arizona SIP September 25, 2014 (79 FR 57445)
- Rule 322 (Power Plant Operations) as revised and adopted November 2, 2016. Submitted to the EPA on December 19, 2016, as part of the Ozone SIP
- Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as revised and adopted November 2, 2016. Submitted to the EPA on December 19, 2016, as part of the Ozone SIP
- Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013
- Rule 331 (Solvent Cleaning) as revised and adopted September 25, 2013
- Rule 333 (Petroleum Solvent Dry Cleaning) as revised and adopted September 25, 2013
- Rule 335 (Architectural Coatings) as revised and adopted September 25, 2013
- Rule 336 (Surface Coating Operations) as revised and adopted November 2, 2016. Submitted to the EPA on December 19, 2016, as part of the Ozone SIP
- Appendix A (Fossil Fuel-Fired Steam Generators) as adopted July 13, 1988

The Maricopa County Air Pollution Control Regulations that are requested to be approved into the Arizona SIP are either as stringent as or more stringent than the existing SIP-approved Maricopa County Air Pollution Control Regulations.

## 1.2 Regulatory Background:

Congress established the basic structure of the Clean Air Act ("CAA") in 1970. The CAA requires the EPA to establish national ambient air quality standards ("NAAQS") for common and widespread pollutants based on the most current science available. For geographic areas that were determined to be in nonattainment of the NAAQS, states are required to adopt federally enforceable SIPs in order to achieve and maintain air quality and meet the federally established air quality standards (the NAAQS).

In order to comply with the CAA, the MCAQD submitted the Maricopa County Air Quality Regulations for facilities under the jurisdiction of the MCAQD to the ADEQ, the designated EPA contact, for inclusion in the original SIP submittal made on January 28, 1972. Through the years, the MCAQD has revised the Maricopa County Air Quality Regulations submitted in the original SIP and has submitted such revised Maricopa County Air Quality Regulations for inclusion in the SIP.

The original MCAQD rules were one- and two-digit rules. In the 1980's, the MCAQD revised some of the rules to address reasonably available control technology ("RACT") and best available control technology ("BACT") in order to comply with the NAAQS. At the same time, the MCAQD reformatted and renumbered all of the rules using a three-digit numbering system. During this transition, some of the reformatted and renumbered rules were not included as SIP revisions. Likewise, some of the two-digit rules were not rescinded (removed) from the SIP. This resulted in the overlap or conflict of requirements between the two-digit SIP-approved Maricopa County Air Pollution Control Regulations and the current three-digit Maricopa County Air Pollution Control Regulations. This overlap or conflict complicates the permitting process when the MCAQD is required to determine which rules, or parts of a rule, are federally enforceable and which are locally enforceable. In April 2016, the EPA and the MCAQD analyzed each of the two-digit SIP-approved Maricopa County Air Pollution Control Regulations in order to update the SIP. The EPA analysis of each SIP-approved rule specified how the Maricopa County Air Quality Regulation did or did not meet the current SIP requirements under the CAA and provided their recommendation for updating the SIP with current MCAQD Maricopa County Air Quality Regulations. The MCAQD also identified some three-digit SIP-approved Maricopa County Air Pollution Control Regulations relating to the two-digit SIP-approved Maricopa County Air Pollution Control Regulations that preceded the current three-digit Maricopa County Air Pollution Control Regulations and therefore need to be rescinded (removed).

Through this collaboration with the EPA, the MCAQD is formally submitting this request to the EPA through the ADEQ, to rescind (remove) SIP-approved rules from the Arizona SIP. The MCAQD is formally requesting the EPA to approve Maricopa County Air Pollution Control Regulations as identified in Section 1.1 of this document into the Arizona SIP.

# SECTION 2: COMPLETENESS CRITERIA

## 2.1 Administrative Materials:

**2.1(a) A formal letter of submittal from the MCAQD Director or [his] designee, requesting the EPA approval of the SIP revision.**

See SIP submission cover letter from Philip A. McNeely, Director of the MCAQD, included above.

**2.1(b) Evidence that the MCAQD has adopted the SIP revision in the State code or body of regulations; or issued the permit, order, consent agreement in final form.**

On September 6, 2017, the Maricopa County Board of Supervisors gave the MCAQD approval to request the EPA to rescind (remove) SIP-approved rules and to request the EPA to approve the Maricopa County Air Pollution Control Regulations as identified in Section 1.1 of this document, into the Arizona SIP.

See Appendix 1 of this document.

**2.1(c) Evidence that the MCAQD has the necessary legal authority under State law to adopt and implement the SIP revision.**

Arizona Revised Statutes §§ 49-112, 49-474, 49-471.09, and 49-479 authorize MCAQD to submit rule revisions for approval in the SIP. See Appendix 2 of this document.

**2.1(d) A copy of the actual regulations, or documents submitted for approval and incorporation by reference into the plan, including indication of the changes made to the existing approved plan, where applicable.**

Copies of the SIP-approved Maricopa County Air Pollution Control Regulations are included in Appendix 3 and the current Maricopa County Air Pollution Control Regulations are included in Appendix 4 of this document. For the purpose of this document ONLY, strike-outs indicate the SIP-approved Maricopa County Air Pollution Control Regulations (Appendix 3) that are requested to be rescinded (removed) from the Arizona SIP. For the purpose of this document ONLY, underlines indicate the current Maricopa County Air Pollution Control Regulations (Appendix 4) that are requested to be approved by the EPA into the Arizona SIP. No revisions were made to the current regulations in this request to the EPA to update the Arizona SIP. A summary and justification of the requested action for each SIP-approved rule is in Table 1 below. A detailed description of each SIP-approved Maricopa County Air Pollution Control Regulation and the MCAQD requested action follows the table.

See Appendices 3 and 4 of this document.

**Table 1: Summary and Justification of the Requested Action**

| SIP Rule Number and Title | Requested Action | Justification for the Requested Action |
|---|---|---|
| SIP Rule 22: Permit Denial-Action-Transfer-Expiration-Posting-Revocation-Compliance<br>SIP Rule 220: Permits to Operate | Rescind (remove) SIP Rule 22 and SIP Rule 220 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 210 (Title V | SIP Rule 22 was renumbered to Rule 220 on July 13, 1988. In 1993, new federal and state provisions created a single "unitary" permit covering both construction and operation. (46 A.A.R. 4249, November 17, 2006). The revisions to SIP Rule 220 along |

| | | |
|---|---|---|
| | Permit Provisions), Rule 220 (Non-Title V Permit Provisions), and Rule 230 (General Permits) as adopted February 3, 2016. | with revisions to Rule 220 and Rule 230 clarified the requirements for Title V, Non-Title V and General Permitted sources, thus making each rule more stringent and enforceable than SIP Rule 22. Revisions to Rules 210, 220 and 230 as adopted on February 3, 2016, updated the MCAQD's major New Source Review ("NSR") rules to reflect current federal requirements and added new minor NSR requirements.<br><br>Rules 210, 220 and 230, as revised in 2016, were submitted by the ADEQ to the EPA on May 19, 2016, as part of the NSR SIP. |
| SIP Rule 27: Performance Tests | Rescind (remove) SIP Rule 27 from the Arizona SIP without replacement. | SIP Rule 27 lacks specific emissions limits or other elements necessary for enforcement, and does not achieve any emissions reductions. |
| SIP Rule 28: Permit Fees | Rescind (remove) SIP Rule 28 from the Arizona SIP without replacement. | SIP Rule 28 lacks specific emissions limits or other elements necessary for enforcement, and does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement. |
| SIP Rule 32.A: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.A from the Arizona SIP without replacement. | SIP Rule 32.A lacks specific emissions limits or other elements necessary for enforcement, and does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement. |
| SIP Rule 32.B: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.B from the Arizona SIP without replacement. | SIP Rule 32.B does not relate to the implementation, maintenance, or enforcement of the NAAQS. Because SIP Rule 32.B does not relate to the NAAQS, it is not required to be in the SIP. |
| SIP Rule 32.C: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.C from the Arizona SIP without replacement. | SIP Rule 32.C lacks specific work practice or other elements necessary for enforcement, and as such, likely achieves no emissions reductions. Moreover, it is not needed to fulfill any SIP requirement. |
| SIP Rule 32.D: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.D from the Arizona SIP without replacement. | SIP Rule 32.D does not establish specific concentrations standards or reduce emissions necessary for enforcement. |
| SIP Rule 32.E: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.E from the Arizona SIP without replacement. | SIP Rule 32.E does not relate to the NAAQS; therefore, is not required to be included in the SIP. |

| | | |
|---|---|---|
| SIP Rule 32.F: Odors and Gaseous Emissions<br><br>SIP Rule 510: Air Quality Standards | Rescind (remove) SIP Rule 32.F and SIP Rule 510 from the Arizona SIP without replacement. | SIP Rule 32.F and SIP 510 at one time, mirrored the NAAQS. In 2010, the EPA revised the primary sulfur oxide standard by establishing a new one-hour standard of 75 ppb and revoking the existing 24-hour standards (75 FR 35520, June 22, 2010). The current NAAQS for sulfur oxide is more stringent than the sulfur oxide standard in SIP Rule 32.F and SIP Rule 510. |
| SIP Rule 32.G: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.G from the Arizona SIP without replacement. | SIP Rule 32.G was superseded by approval of SIP Rule 32.J on July 27, 1972 (37 FR 15080). Refer to SIP Rule 32.J below. |
| SIP Rule 32.H: Odors and Gaseous Emissions<br><br>SIP Rule 322: Power Plant Operations | Rescind (remove) SIP Rule 32.H and SIP Rule 322 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 322 (Power Plant Operations) as adopted November 2, 2016. | SIP Rule 32.H and SIP Rule 322 do not reflect the current RACT for Ozone. Rule 322 was revised to meet RACT for nitrogen oxides making it more stringent than SIP Rule 32.H and SIP Rule 322.<br><br>Rule 322, as revised in 2016, was submitted by the ADEQ to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 32.J: Odors and Gaseous Emissions | Rescind (remove) SIP Rule 32.J from the Arizona SIP without replacement. | SIP Rule 32.J lacks specific work practice and other elements necessary for enforcement. It does not relate to the implementation, maintenance, or enforcement of the NAAQS. Therefore, it is not required to be in the SIP. |

| | | |
|---|---|---|
| SIP Rule 32.K: Odors and Gaseous Emissions<br><br>SIP Rule 322: Power Plant Operations<br><br>SIP Rule 323: Fuel Burning Equipment from Industrial/Commercial/<br><br>Institutional (ICI) Sources | Rescind (remove) SIP Rule 32.K, SIP Rule 322 and SIP Rule 323 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 322 (Power Plant Operations) and Rule 323 (Fuel Burning Equipment from Industrial/Commercial/<br><br>Institutional (ICI) Sources) as adopted November 2, 2016. | SIP Rule 32.K was repealed by the MCAQD in 2003 due to the inclusion of carbon monoxide (CO) limitations in SIP-approved Rule 322 and SIP-approved Rule 323. Rules 322 and 323 were revised in 2016 to meet the Ozone RACT requirements making current Rule 322 and 323 more stringent than SIP Rule 32.K and SIP Rule 323.<br><br>Rule 322 and Rule 323, as both rules were revised in 2016, were submitted by the ADEQ to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 34.A: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.A from the Arizona SIP without replacement. | SIP Rule 34.A lacks specific emissions limits or other elements necessary for enforcement, and does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement. |
| SIP Rule 34.B: Organic Solvents-Volatile Organic Compounds (VOC), (Degreasers, General Provisions)<br><br>SIP Rule 331: Solvent Cleaning | Rescind (remove) SIP Rule 34.B. and SIP Rule 331 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 331 (Solvent Cleaning) as adopted September 25, 2013. | SIP Rule 34.B does not specify emission standards, only to "minimize emissions." Rule 331 identifies various different types of degreasing operations and solvents as well as methods and emission standards to control the emissions from each process.<br><br>Rule 331, as revised in 2013, is more stringent than SIP Rule 34.B and SIP Rule 331. |
| SIP Rule 34.C: Organic Solvents-Volatile Organic Compounds (VOC), (Metal Cleaning Operations)<br><br>SIP Rule 331: Solvent Cleaning | Rescind (remove) SIP Rule 34.C and SIP Rule 331 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 331 (Solvent Cleaning) as adopted September 25, 2013. | SIP Rule 34.C applies only to the cleaning/degreasing of metal. SIP Rule 331 applies to cleaning the surface of any exterior or interior surface. Rule 331 clarified the definition of VOC and, as revised in 2013, is more stringent than SIP Rule 34.C and SIP Rule 331. |
| SIP Rule 34.D.1: Organic Solvents- Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.D.1 from the Arizona SIP without replacement. | SIP Rule 34.D.1 applied to perchloroethylene dry cleaning operations. In 1996, the EPA deleted perchloroethylene from the definition of Volatile Organic Compound (VOC) on the basis that the chemical has negligible photochemical reactivity. SIP Rule 34.D.1 is no longer required for purposes of meeting the NAAQS. |

| | | |
|---|---|---|
| SIP Rule 34.D.2: Organic Solvents- Volatile Organic Compounds (VOC)<br><br>SIP Rule 333:Petroleum Solvent Dry Cleaning | Rescind (remove) SIP Rule 34.D.2 and SIP Rule 333 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 333 (Petroleum Solvent Dry Cleaning) as adopted September 25, 2013. | SIP Rule 34.D was renumbered in 1984 to 34.C and in 1988 to Rule 333. Each of these revisions made the rule more stringent than the 1980 SIP-approved Rule 34.D.2. SIP Rule 333 requires a solvent recovery system, cleaning equipment not to be operated with any perceptible liquid or vapor leaks, specific storage requirements and recordkeeping provisions. The 2013 revisions to Rule 333 clarified the definition of a VOC.<br><br>Rule 333, as revised in 2013, is more stringent than SIP Rule 34.D.2 and SIP Rule 333. |
| SIP Rule 34.E.1: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations) | Rescind (remove) SIP Rule 34.E.1 from the Arizona SIP without replacement. | SIP Rule 34.E.1 does not include any test methods to determine the capture efficiency of the enclosure. Thus the rule is unenforceable. |
| SIP Rule 34.E.2: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations)<br><br>SIP Rule 335: Architectural Coatings | Rescind (remove) SIP Rule 34.E.2 and SIP Rule 335 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 335 (Architectural Coatings) as adopted September 25, 2013. | SIP Rule 34.E.2 was renumbered to Rule 335 in 1988 and established specific limits for various types of coatings, labeling requirements and testing procedures for architectural coatings. The 2013 revisions to Rule 335 clarified the definition of a VOC. The 2013 revision to Rule 335 makes the rule more stringent that SIP Rule 34.E.2 and SIP Rule 335. |
| SIP Rule 34.E.3: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations) | Rescind (remove) SIP Rule 34.E.3 from the Arizona SIP without replacement. | SIP Rule 34.E.3 lacks specific emissions limits or other elements necessary for enforcement, and does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement. |

| | | |
|---|---|---|
| SIP Rule 34.E.4: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations)<br><br>SIP Rule 336: Surface Coating Operations | Rescind (remove) SIP Rule 34.E.4 and SIP Rule 336 from the Arizona SIP.<br><br>Approve into the Arizona SIP, Rule 336 (Surface Coating Operations) as adopted November 2, 2016. | SIP Rule 34.E.4 was renumbered to Rule 336 in 1988. SIP Rule 336 was again revised in 1999 revision to further clarify VOC emission limits. SIP Rule 336 was again revised in 2016 to incorporate the CTG RACT recommendations issued by the EPA in 2006 through 2008. Rule 336 revisions include additional types of VOC coating limits, transfer efficiency for spray equipment, and additional work practices to reduce VOC emissions. Rule 336 as revised in 2016, is more stringent than SIP Rule 34.E.4 and SIP Rule 336.<br><br>Rule 336, as revised in 2016, was submitted by the ADEQ to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 34.F: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.F.<br><br>Approve into the Arizona SIP, Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. | SIP Rule 34.F limited the discharge of organic materials into the atmosphere. SIP Rule 34.F was revised in 1984 and then renumbered to Rule 330 in 1988. Rule 330 has since been revised with each revision clarifying and revising the established emission limits for operations involving heat; non-complying solvents; and process lines.<br><br>Rule 330, as revised in 2013, is more stringent than SIP Rule 34.F |
| SIP Rule 34.G: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.G.<br><br>Approve into the Arizona SIP, Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. | SIP Rule 34.G was revised in 1984 and then renumbered to Rule 330 in 1988. Rule 330, Section 302, mirrors SIP Rule 34.G and adds requirements for the reduction of emissions. In 2013, Rule 330 was again revised to clarify the definition of a VOC.<br><br>Rule 330, as revised in 2013, is more stringent than SIP Rule 34.G. |

| | | |
|---|---|---|
| SIP Rule 34.H: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.H.<br><br>Approve into the Arizona SIP, Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. | SIP Rule 34.H was revised in 1984 and then renumbered to Rule 330 in 1988. Rule 330, Section 304, lists specific methods of reducing emissions and establishes emission thresholds. Section 304 also requires an Operations and Maintenance Plan be submitted for the Emission Control System (ECS).<br><br>Rule 330, as revised in 2013, is more stringent than SIP Rule 34.H. |
| SIP Rule 34.I: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.I.<br><br>Approve into the Arizona SIP, Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. | SIP Rule 34.I was revised in 1984 and then renumbered to Rule 330 in 1988. Rule 330, Section 307, lists specific exemptions from the rule, including specific SIC codes to further identify specific operations that are exempted instead of a general description.<br><br>Rule 330, as revised in 2013, is more stringent than SIP Rule 34.I. |
| SIP Rule 34.J: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.J.<br><br>Approve into the Arizona SIP, Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. | SIP Rule 34.J was revised in 1984 and then renumbered to Rule 330 in 1988. Rule 330 revised the name of a photochemically reactive solvent to a non-complying solvent. Rule 330 lists five classifications of different compounds (Group I-III), an aggregate of any of Group I-III in 20 % by volume and also states that whenever any organic solvent may be classified from its chemical structure into more than one group it shall be considered as a member of the most reactive group e.g. having the least allowable percent of the total volume of solvents.<br><br>Rule 330, as revised in 2013, is more stringent than SIP Rule 34.J. |
| SIP Rule 34.K: Organic Solvents-Volatile Organic Compounds (VOC) | Rescind (remove) SIP Rule 34.K.<br><br>Approve into the Arizona SIP, Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. | SIP Rule 34.K was revised in 1984 and then renumbered to Rule 330 in 1988. Rule 330, Section 306, identifies specific storage, disposal and labeling requirements.<br><br>Rule 330, as revised in 2013, is more stringent than SIP Rule 34.K. |

| | | |
|---|---|---|
| SIP Rule 34.L: Organic Solvents-Volatile Organic Compounds (VOC), (Cutback Asphalt)<br><br>SIP Rule 340: Cutback and Emulsified Asphalt | Rescind (remove) SIP Rule 34.L and SIP Rule 340 from the Arizona SIP without replacement. | The MCAQD has determined that there are no emitting facilities within the county for the CTG source category of cutback asphalt. A negative declaration is to be submitted to the EPA stating this fact. |
| SIP Rule 35: Incinerators | Rescind (remove) SIP Rule 35.<br><br>Retain SIP Rule 313 (Incinerators, Burn- Off Ovens, and Crematories) as adopted May 9, 2012, and approved into the SIP September 25, 2014 (79 FR 57445). | SIP Rule 35 was renumbered to Rule 313 in 1988. SIP Rule 313 establishes equipment specifications, timing restrictions, informational requirements, performance test requirements, and opacity and particulate standards for the use of incinerators, burn-off ovens and crematories. In addition, SIP Rule 313 establishes more stringent control requirements and defined specific burn temperatures and conditions. SIP Rule 313 is more stringent than SIP Rule 35.<br><br>SIP Rule 313 does not include any provision for hospital/medical/infectious waste incinerators (HMIWI) because there are no HMIWI located within the MCAQD jurisdiction. A negative declaration is to be submitted to the EPA stating this fact. Retain SIP Rule 313 for incinerators, burn-off ovens and crematories. |
| SIP Rule 41.A: Monitoring | Rescind (remove) SIP Rule 41.A from the Arizona SIP without replacement. | Arizona Revised Statutes (A.R.S) Section 36-780 which was approved in the SIP in 1982 (47 FR 26382, June 18, 1982) mirrors Rule 41.A. |
| SIP Rule 41.B: Monitoring | Rescind (remove) SIP Rule 41.B.<br><br>Approve into the Arizona SIP, Rule 245 (Continuous Source Emission Monitoring) as adopted November 15, 1993, and Appendix A (Fossil Fuel-Fired Steam Generators) as adopted July 13, 1988. | SIP Rule 41.B was renumbered to Rule 245 in 1988 and mirrored the requirements in SIP Rule 41.B. Rule 245 was again revised in 1993 to clarify emission monitoring requirements, procedures and test methods. Maricopa County Air Quality Regulation, Appendix A outlines the procedures used to convert gaseous emission monitoring data from parts per million to g/million cal (lb/million BTU).<br><br>Rule 245, as revised in 1993, and Appendix A, as adopted in 1988, are more stringent than SIP Rule 41.B |

| | | |
|---|---|---|
| SIP Rule 42: Testing and Sampling | Rescind (remove) SIP Rule 42 from the Arizona SIP without replacement. | SIP Rule 42 does not specify emission limits or achieve any emission reductions. |
| SIP Rule 74: Public Notification<br><br>SIP Rule 100: General Provisions and Definitions | Rescind (remove) SIP Rule 74 and SIP Rule 100.<br><br>Approve into the Arizona SIP, Rule 100 (General Provisions and Definitions) as adopted February 3, 2016. | SIP Rule 100 mirrored SIP Rule 74 until the rule was revised in 2006 to incorporate the EPA revisions for daily reporting to the general public. This revision included the renaming of the PSI to "Air Quality Index (AQI)" (64 Fed. Reg. 42530, August 4, 1999). This revision made Rule 100 more stringent than SIP Rule 74 because the AQI included new reporting requirements; the use of specific colors for categories; and the addition of new categories and thresholds.<br><br>Rule 100, as revised in 2016, was submitted by the ADEQ to the EPA on May 19, 2016, as part of the NSR SIP. |
| SIP Rule 81: Operation | Rescind (remove) SIP Rule 81 from the Arizona SIP without replacement. | SIP Rule 81 does not relate to the SIP's purpose under the Clean Air Act, Section 110(a) of implementing, maintaining and enforcing the NAAQS. |

A detailed description of each SIP-approved Maricopa County Air Pollution Control Regulation and the MCAQD requested action follows.

**SIP Rule 22: Operating Permits**

**SIP Rule 22** (Operating Permits), as adopted on August 12, 1971, was one of the original rules submitted for inclusion in the SIP. On July 27, 1972, the EPA approved Rule 22 into the Arizona SIP (37 FR 15080).

In 1988, the MCAQD revised the requirements for a permit to operate and renumbered SIP Rule 22 to Rule 220 (Permits to Operate). Per the 1988 SIP completeness checklist, Rule 220 is analogous to SIP-approved Rule 22. Rule 220 was submitted on September 26, 1989, to the ADEQ who forwarded the SIP submittal to the EPA on January 4, 1990. Rule 220 (Permits to Operate), was revised and adopted by the Board on July 13, 1988. SIP Rule 22.B and E were superseded and removed from the Arizona SIP by EPA approval of Rule 220 on January 6, 1992 (57 FR 354) into the SIP.

Until 1993, Maricopa County required two permits for stationary sources: an installation permit before beginning construction or modification and a separate permit authorizing operation of the new source or modification. In 1993, Maricopa

County amended its air quality rules with the intention of meeting both the Title I NSR requirements and the Title V operating permit requirements with a unitary program that authorizes both construction and operation in a single permit. (Arizona Administrative Register, 46 A.A.R. 4249, November 17, 2006). To include the provisions found in SIP Rule 22 for all types of sources, the MCAQD also repealed and revised Rule 210 (Title V Permit Provisions) and drafted the new Rule 230 (General Permits). The revisions to Rules 210, 220 and 230 clarified the requirements for Title V, Non-Title V and General Permitted sources, thus making each rule more stringent and enforceable than SIP Rule 22. Revisions to Rules 210, 220 and 230 as adopted on February 3, 2016, updated the MCAQD's major New Source Review ("NSR") rules to reflect current federal requirements and added new minor NSR requirements.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 22 (Operating Permits), as approved into the Arizona SIP on July 27, 1972 (37 FR 15080) and SIP Rule 220 (Permits to Operate) as approved into the Arizona SIP on January 6, 1992 (57 FR 354), from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation II-Permits and Fees, Rule 210 (Title V Permit Provisions), Rule 220 (Non-Title V Permit Provisions) and Rule 230 (General Permits) as revised and adopted February 3, 2016, into the Arizona SIP. These rules were submitted to the EPA on May 19, 2016, as part of the NSR SIP submittal.

**SIP Rule 27: Performance Tests**

**SIP Rule 27** (Performance Tests), as adopted on June 23, 1980, was submitted for inclusion in the SIP on June 23, 1980. The EPA approved Rule 27 into the SIP on April 12, 1982 (47 FR 15579). SIP Rule 27 does not establish emission limits or control strategies for pollutants as necessary for enforcement or achieve emissions reductions.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 27 as approved into the Arizona SIP on April 12, 1982 (47 FR 15579).

**SIP Rule 28: Permit Fees**

**SIP Rule 28** (Permit Fees) establishes installation permit fees and annual operating fees for various types of equipment and processes. Rule 28 was approved into the SIP on June 18, 1982 (47 FR 26382). Rule 28 was again submitted on October 24, 1984, to the EPA "…as an official revision to the Arizona State Implementation Plan." The program fee requirement is statutorily mandated by Arizona Revised Statutes (A.R.S.) §§ 49-480(D)(1) and (D)(2). A.R.S. § 49-480(D)(1) requires the MCAQD to establish a fee system for Title V sources that is consistent with and equivalent to that prescribed under § 502 of the CAA. A.R.S. § 49-480(D)(2) requires a permit fee for Non- Title V sources to be based on all reasonable direct and indirect costs required to administer the permit, but not to exceed twenty-five thousand dollars. Furthermore, A.R.S. § 49- 480(D)(2) requires the establishment of an annual inspection fee, not to exceed the average cost of services. Arizona law and the CAA both provide for increasing permit fees based on the consumer price index. (As published at 16 A.A.R. 1270, July

16, 2010).

The fees in SIP Rule 28 as adopted by the Board October 25, 1982, are outdated. SIP Rule 28 does not establish emission limits or control strategies for pollutants or achieve emissions reductions.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 28 as approved into the Arizona SIP on June 18, 1982 (47 FR 26382).

**SIP Rule 32: Odors and Gaseous Emissions (A-H and J-K)**

**SIP Rule 32.A** (Odors and Gaseous Emissions) as adopted August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080) is a general prohibitory rule against emitting gaseous or odorous emissions in such quantities as to cause air pollution. Rule 32.A lacks specific emissions limits or other elements necessary for enforcement and does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.A as approved into the Arizona SIP on July 27, 1972 (37 FR 15080).

**SIP Rule 32.B** (Odors and Gaseous Emissions) as adopted August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080), covers treatment or processing of animal or vegetable matter and prohibits such operations unless all effluents from such operations have been incinerated to destruction under certain specified conditions and requires use of control devices as necessary to prevent air pollution. Rule 32.B is a general nuisance-type regulation. It does not relate to the implementation, maintenance, or enforcement of the NAAQS, therefore is not required to be in the SIP.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.B as approved into the Arizona SIP on July 27, 1972 (37 FR 15080).

**SIP Rule 32.C** (Odors and Gaseous Emissions) as adopted August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080), requires reasonable measures and installation of control devices to reduce emissions from evaporation, leakage or discharge from the processing, storage, use and transport of materials such as solvents, paints, acids, fertilizers and manure. SIP Rule 32.C lacks specific work practice or other elements necessary for enforcement, and as such, does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.C as approved into the Arizona SIP on July 27, 1972 (37 FR 15080).

**SIP Rule 32.D** (Odors and Gaseous Emissions) as adopted August 12, 1971, and

approved into the Arizona SIP on July 27, 1972 (37 FR 15080), relates to nuisance effects from emissions on adjoining properties and authorizes the Control Officer to require abatement equipment or alterations to the stack to reduce nuisance impacts. The rule does not establish specific concentrations standards or reduce emissions.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.D as approved into the Arizona SIP on July 27, 1972 (37 FR 15080).

**SIP Rule 32.E** (Odors and Gaseous Emissions) as adopted August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080), establishes a property-line concentration standards for hydrogen sulfide but does not relate to the NAAQS, therefore is not required to be included in the SIP.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.E as approved into the Arizona SIP on July 27, 1972 (37 FR 15080).

**SIP Rule 32.F** (Odors and Gaseous Emissions) as adopted August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080), establishes property-line concentrations standards for sulfur dioxide and sulfuric acid due to emissions of sulfur oxides or sulfuric acid at a facility. Per the EPA analysis, limiting the sulfur oxide concentrations at a property line could "theoretically act to limit sulfur oxide emissions…" making SIP Rule 32.F applicable to the NAAQS. In 2006, Rule 510 (Air Quality Standards) was revised to clarify the sulfur oxide emissions and mirror the sulfur dioxide NAAQS, thus and making Rule 510 more stringent than SIP Rule 32.F. Rule 510 as revised and adopted on November 1, 2006, was approved into the Arizona SIP on November 9, 2009 (74 FR 57612).

In 2010, the EPA revised the primary sulfur oxide standard by establishing a new one-hour standard of 75 ppb and revoking the existing 24-hour standards (75 FR 35520, June 22, 2010). The current sulfur oxide standard is more stringent than the sulfur oxide standard listed in SIP Rule 32.F and SIP Rule 510.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.F as approved into the Arizona SIP on July 27, 1972 (37 FR 15080) and SIP Rule 510 as approved into the Arizona SIP on November 9, 2009 (74 FR 57612), from the Arizona SIP.

**SIP Rule 32.G** (Odors and Gaseous Emissions, Other Industries) as adopted October 1, 1975 and approved into the Arizona SIP on April 12, 1982 (47 FR 15579) prohibits a person from emitting reduced sulfur in excess of ten percent (10%) of the sulfur entering the process as feed. The Notice of Final Rulemaking (9 A.A.R. 3388, August 1, 2003) documented that no sulfuric acid plants were located within Maricopa County. Currently there are no facilities located within Maricopa County that use sulfur entering a process as feed.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the

Arizona SIP, SIP Rule 32.G as approved into the Arizona SIP on April 12, 1982 (47 FR 15579).

**SIP Rule 32.H** (Odors and Gaseous Emissions, Fuel Burning Equipment for Producing Electric Power) as adopted October 1, 1975 and approved into the Arizona SIP on April 12, 1982 (47 FR 15579) applies to installations that are operated to produce electrical power. These types of facilities emit sulfur dioxide as a by-product. SIP Rule 32.H established sulfur dioxide emission limits for new oil burning sources, existing oil burning sources, new coal burning sources and existing coal burning sources.

Maricopa County Rule 322 (Power Plant Operations) applies to facilities that burn fossil fuel. These types of facilities include the electric utility steam generating unit or cogeneration steam generating unit used to generate electric power; an electric utility stationary gas turbine; and the cooling tower(s) associated with the equipment. Rule 322 was approved into the Arizona SIP on October 14, 2009 (74 FR 52693). SIP Rule 322 establishes standards for particulate matter ("PM") (Section 301); Sulfur in fuel (Section 305); Nitrogen Oxides ("NOx") (Section 306); and Carbon Monoxide ("CO") (Section 307). SIP Rule 322 specifies requirements for emission monitoring equipment, operation and maintenance plans; and emission compliance demonstration. The specific emission standards in SIP Rule 322 make the rule more stringent than SIP Rule 32.H.

Rule 322, as revised and adopted on November 2, 2016, addressed the requirements of the SIP for "moderate" nonattainment for the 2008 eight- hour ozone NAAQS. The revisions to Rule 322 included RACT for NOx making Rule 322 more stringent than SIP Rule 322.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 32.H as approved into the Arizona SIP on April 12, 1982 (47 FR 15579) and SIP Rule 322 as approved into the Arizona SIP on October 14, 2009 (74 FR 52693) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 322 (Power Plant Operations) as revised and adopted November 2, 2016, into the Arizona SIP. This rule was submitted to EPA on December 19, 2016, as part of the Ozone SIP.

**SIP Rule 32.J** (Odors and Gaseous Emissions, Operating Requirements for an Asphalt Kettle) as adopted June 23, 1980, and approved into the Arizona SIP on April 12, 1982 (47 FR 15579) established operational requirements primarily to reduce the potential for nuisance odors. SIP Rule 32.J relies on controlling the "…air contaminant emissions by good modern practices…" No specific emission limits are in the rule thus limiting the enforceability of the rule. The control measures such as keeping the kettle lid closed, only delay the emissions until the asphalt material is applied to the roof. Any actual emission reductions achieved by the use of "good modern practices" would be mostly negated by the evaporative emissions when applying the asphalt material to a roof. It does not relate to the implementation, maintenance, or enforcement of the NAAQS, therefore not required to be in the SIP.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 32.J as approved into the Arizona SIP on April 12, 1982 (47 FR 15579).

**SIP Rule 32.K** (Odors and Gaseous Emissions, Emissions of Carbon Monoxide) as adopted on June 23, 1980 and approved into the Arizona SIP on April 12, 1982 (47 FR 15579), states "The discharge of carbon monoxide emissions from any process source shall be effectively controlled by means of secondary combustion." Maricopa County is designated as an attainment area for the carbon monoxide NAAQS. Per the EPA, SIP Rule 32.K may provide a theoretical protection of property-line exceedances of the standard. SIP Rule 322 Power Plant Operations) and SIP Rule 323 (Fuel Burning from Industrial/Commercial/Institutional (ICI) Sources), both as approved into the Arizona SIP on October 14, 2009 (74 FR 52693) clarify the CO limits, thus making SIP-approved Rule 322 and SIP-approved Rule 323 more stringent than SIP Rule 32.K.

On November 2, 2016, the MCAQD revised Rule 323 to address the requirements of the State Implementation Plan (SIP) for "moderate" nonattainment for the 2008 eight-hour ozone NAAQS. The amendments in Rule 323 included RACT for NOx. These rule revisions make Rule 322, as revised in 2016, and Rule 323, as revised in 2016, more stringent than SIP Rule 322 and SIP Rule 323.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 32.K as approved into the Arizona SIP on April 12, 1982 (47 FR 15579); SIP Rule 322 as approved into the Arizona SIP on October 14, 2009 (74 FR 52693); and SIP Rule 323 as approved into the Arizona SIP on October 14, 2009 (74 FR 52693) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 322 (Power Plant Operations) and Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as revised and adopted November 2, 2016, into the Arizona SIP. These rules were submitted to the EPA on December 19, 2016, as part of the Ozone SIP submittal.

**SIP Rule 34: Organic Solvents-Volatile Organic Compounds (VOC)**

**SIP Rule 34.A** (Volatile Organic Compound Definition) as adopted June 23, 1980, was approved into the Arizona SIP May 5, 1982 (47 FR 19326). Paragraph A was the definition of one term: volatile organic compound. This definition, by itself, does not meet any of the requirements of the NAAQS.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 34.A as approved into the SIP May 5, 1982 (47 FR 19326).

**SIP Rule 34.B** (Degreasers, General Provisions), as adopted June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326), limits the use of a vapor phase degreasing operation through the use of "good modern practices" and requires any spray degreasing to be conducted in an enclosure. In 1984, the MCAQD revised Rule 34. Paragraph A was deleted and Paragraph B now became Paragraph A. In 1988, the

MCAQD revised and renumbered all of the rules. The requirements of Rule 34.A (as revised in 1984) were incorporated into new Rule 331. Per the SIP completeness checklist document for the 1990 SIP submittal to the EPA, Rule 331 was analogous to SIP Rule 34.A. On January 4, 1990, Rule 331 (Solvent Cleaning) was submitted to the EPA through the ADEQ for inclusion in the Arizona SIP. Rule 331 was again revised and resubmitted to order to meet the RACT requirements for ozone for non-attainment areas. On February 1, 1996, the EPA approved Rule 331, as adopted June 22, 1992, into the SIP (61 FR 3578). Additional rule revisions and submittals by the MCAQD occurred between 1992 and today. Rule 331, as revised and adopted April 21, 2004, is the EPA approved rule in the Arizona SIP (69 FR 76417, December 21, 2004). Rule 331 was again revised and adopted on September 25, 2013.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.B as approved into the Arizona SIP May 5, 1982 (47 FR 19326) and SIP Rule 331 as approved into the Arizona SIP December 21, 2004 (69 FR 76417) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 331 (Solvent Cleaning) as revised and adopted September 25, 2013, into the Arizona SIP.

**SIP Rule 34. C** (Metal Cleaning Operations) as adopted June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326), describes the operating requirements of cold organic solvent cleaning equipment, open top vapor degreasing operations, conveyorized degreasers and emission control equipment. In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph B became Paragraph A. Paragraph C became Paragraph B. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.B (as revised in 1984) were incorporated into new Rule 331. Rule 331 limits the emissions of volatile organic compounds (VOCs) from surface cleaning and degreasing operations. Per the SIP completeness checklist document for the 1990 SIP submittal to the EPA, Rule 331 is analogous to Rule 34.B. On January 4, 1990, Rule 331 (Solvent Cleaning) was submitted to the EPA through the ADEQ for inclusion in the Arizona SIP. Rule 331 was again revised and resubmitted to order to meet the RACT requirements for ozone for non-attainment areas. On February 1, 1996, the EPA approved Rule 331, as adopted June 22, 1992, into the SIP (61 FR 3578). Additional rule revisions and submittals by the MCAQD occurred between 1992 and today. The April 21, 2004, as revised Rule 331 is the currently EPA approved rule Arizona SIP (69 FR 76417, December 21, 2004). In September 25, 2013, the MCAQD clarified the definition of VOC making Rule 331 more stringent than SIP Rule 34.C and SIP Rule 331.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.C as approved into the Arizona SIP May 5, 1982 (47 FR 19326) and SIP Rule 331 as approved into the Arizona SIP December 21, 2004 (69 FR 76417) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 331 (Solvent Cleaning) as revised and adopted September 25, 2013, into the Arizona SIP.

**SIP Rule 34.D.1** (Dry Cleaning) as adopted June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326), describes the operating requirements for dry cleaning

equipment using chlorinated synthetic solvents. In 1996, the EPA deleted perchloroethylene from the definition of Volatile Organic Compound (VOC) on the basis that the chemical has negligible photochemical reactivity. SIP Rule 34.D.1 is no longer required for purposes of meeting the NAAQS.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 34.D.1 as approved into the Arizona SIP May 5, 1982 (47 FR 19326).

**SIP Rule 34.D.2** (Dry Cleaning) as adopted June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326), describes the operating requirements for dry cleaning equipment using petroleum solvents. In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph D now became Paragraph C. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.C (as revised in 1984) were incorporated into new Rule 333. Rule 333 controls the VOC emissions from petroleum solvent dry cleaning operations. Per the SIP completeness checklist document for the 1990 SIP submittal to the EPA, Rule 333 is analogous to Rule 34.C.

Two rule revisions (June 2, 1992 and June 19, 1996) were made to Rule 333 (Petroleum Solvent Dry Cleaning) in order to meet the RACT requirements for ozone for non-attainment areas. Revisions to meet RACT included requirements for a solvent recovery system; cleaning equipment not to be operated with any perceptible liquid or vapor leaks; specific storage requirements; and recordkeeping provisions. On February 26, 1997, the MCAQD submitted to the EPA through the ADEQ, Rule 333 for inclusion in the Arizona SIP. SIP Rule 333 was approved by the EPA into the Arizona SIP February 9, 1998 (63 FR 6489).

In 2013, the MCAQD again revised Rule 333 to clarify the definition of a VOC. Rule 333 as revised in 2013, is more stringent than SIP Rule 34.D.2 and SIP Rule 333.

The MCAQD is requesting the EPA to rescind (remove) from the Arizona SIP, SIP Rule 34.D.2 as approved into the SIP May 5, 1982 (47 FR 19326) and SIP Rule 333 as approved into the Arizona SIP February 9, 1998 (63 FR 6489) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 331 (Solvent Cleaning) as revised and adopted September 25, 2013 into the Arizona SIP.

**SIP Rule 34.E** (Spray Paint and Other Surface Coating Operations) as approved into the Arizona SIP May 5, 1982 (47 FR 19326)

**SIP Rule 34.E.1** (Spray Paint and Other Surface Coating Operations) describes the requirements for containing overspray from surface coating operations. SIP Rule 34.E.1 does not provide any method in which to determine if the enclosure can actually capture 96% of the overspray making this rule unenforceable. No test methods are included in this rule.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 34.E.1 as approved into the Arizona SIP May 5, 1982 (47 FR

19326).

**SIP Rule 34.E.2** (Spray Paint and Other Surface Coating Operations) describes the requirements for architectural coatings. In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph E now became Paragraph D. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.D (as revised in 1984) were incorporated into new Rule 335 (Architectural Coatings).

Rule 335 controls the VOC emissions from architectural coatings. Per the SIP completeness checklist document for the 1990 SIP submittal to the EPA, Rule 335 is analogous to Rule 34.D. Rule 335 as adopted on July 13, 1988 and approved into the Arizona SIP on January 6, 1992 (57 FR 354), was revised on September 25, 2013. Rule 335 as revised in 2013, is more stringent than SIP Rule 34.E.2 and SIP Rule 335.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.E.2 (Spray Paint and Other Surface Coating Operations) as approved into the Arizona SIP May 5, 1982 (47 FR 19326) and SIP Rule 335 as approved into the Arizona SIP on January 6, 1992 (57 FR 354) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control, Regulation III-Control of Air Contaminants, Rule 335 (Architectural Coatings) as revised and adopted September 25, 2013 into the Arizona SIP.

**SIP Rule 34.E.3** (Spray Paint and Other Surface Coating Operations) is a definition. SIP Rule 34.E.3 lacks specific emissions limits or other elements necessary for enforcement, and does not achieve any emissions reductions. Moreover, it is not needed to fulfill any SIP requirement.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 34.E.3 (Spray Paint and Other Surface Coating Operations) as approved into the Arizona SIP May 5, 1982 (47 FR 19326).

**SIP Rule 34.E.4** (Spray Paint and Other Surface Coating Operations-Other Coating Operations) specifies emission limits for any coating applied by "spraying, dipping, flow coating, electrodeposition or by any other means on any coating line or operation…"

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph E now became Paragraph D. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.D (as revised in 1984) were incorporated into new Rule 336 (Surface Coating Operations). Rule 336 was revised several times by the MCAQD and submitted on August 4, 1999, to the EPA for inclusion into the Arizona SIP. On September 20, 1999 (64 FR 50759), the EPA approved Rule 336 into the Arizona SIP. Rule 336 was revised and adopted on November 2, 2016. These revisions incorporate the CTG RACT recommendations issued by the EPA in 2006 through 2008. Rule 336 revisions include additional types of VOC coating limits, transfer efficiency for spray equipment, and additional work practices to reduce VOC emissions. Rule 336 as revised in 2016, is more stringent than SIP Rule 34.E.4 and SIP Rule 336.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.D.4 as approved into the Arizona SIP May 5, 1982 (47 FR 19326) and SIP Rule 336 as approved into the Arizona SIP September 20, 1999 (64 FR 50759) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 336 (Surface Coating Operations) as revised and adopted November 2, 2016, into the Arizona SIP. This rule was submitted to the EPA on December 12, 2016, as part of the Ozone RACT SIP submittal.

**SIP Rule 34.F** (Spray Paint and Other Surface Coating Operations) specifies a fifteen (15) pound per day limit of "organic materials into the atmosphere… [that] comes into contact with flame or is baked, heat-cured, or heat-polarized…"

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph F now became Paragraph E. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.E (as revised in 1984) were incorporated into new Rule 330 (Volatile Organic Compounds). Rule 330 was revised several times by the MCAQD with the most current revision occurring in 2013. The purpose of Rule 330 is "To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds." Rule 330 clarified definitions and established limits for operations involving heat (Section 301 of Rule 330); non-complying solvents (Section 302 of Rule 330); and process lines (Section 303). The rule also requires that emission of VOC be reduced (Section 304 of Rule 303) by incineration, adsorption and use of low VOC containing materials. In 2013, the definition of VOC was clarified. These revisions make the Rule 330, as revised in 2013, more stringent than SIP Rule 34.G.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.F as approved into the Arizona SIP May 5, 1982 (47 FR 19326) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013, into the Arizona SIP.

**SIP Rule 34.G** (Spray Paint and Other Surface Coating Operations) specifies a forty (40) pound per day limit of "organic materials into the atmosphere…" for non-heat treated emissions.

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph G now became Paragraph F. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.F (as revised in 1984) were incorporated into new Rule 330 (Volatile Organic Compounds). Rule 330 was revised several times by the MCAQD with the most current revision occurring in 2013. The purpose of Rule 330 is "To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds." Rule 330 clarified definitions and established limits for operations involving heat (Section 301 of Rule 330); non-complying solvents (Section 302 of Rule 330); and process lines (Section 303). The rule also requires that emission of VOC be reduced (Section 304 of Rule 303) by incineration, adsorption and use of low VOC

containing materials. These revisions make Rule 330 more stringent than SIP Rule 34.G

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.G as approved into the Arizona SIP May 5, 1982 (47 FR 19326) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013, into the Arizona SIP.

**SIP Rule 34.H** (Spray Paint and Other Surface Coating Operations) requires emissions to be controlled by incineration, adsorption or processing.

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph H now became Paragraph G. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.G (as revised in 1984) were incorporated into new Rule 330 (Volatile Organic Compounds). Rule 330 was revised several times by the MCAQD with the most current revision occurring in 2013. The purpose of Rule 330 is "To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds." Rule 330 clarified definitions and established limits for operations involving heat (Section 301 of Rule 330); non-complying solvents (Section 302 of Rule 330); and process lines (Section 303). The rule also requires that emission of VOC be reduced (Section 304 of Rule 303) by incineration, adsorption and use of low VOC containing materials. These revisions make Rule 330 more stringent than SIP Rule 34.H

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.H as approved into the Arizona SIP May 5, 1982 (47 FR 19326) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013, into the Arizona SIP.

**SIP Rule 34.I** (Spray Paint and Other Surface Coating Operations) lists the exemptions to Rule 34.

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph I now became Paragraph H. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.H (as revised in 1984) were incorporated into new Rule 330 (Volatile Organic Compounds). Rule 330 was revised several times by the MCAQD with the most current revision occurring in 2013. The purpose of Rule 330 is "To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds." Rule 330 clarified definitions and established limits for operations involving heat (Section 301 of Rule 330); non-complying solvents (Section 302 of Rule 330); and process lines (Section 303). The rule also requires that emission of VOC be reduced (Section 304 of Rule 303) by incineration, adsorption and use of low VOC containing materials. Exemptions were further limited by identifying exempt industries by using the Standard Industrial Classification (SIC) codes (Section 307 of Rule 330).

These revisions make Rule 330 more stringent than SIP Rule 34.I

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.I as approved into the Arizona SIP May 5, 1982 (47 FR 19326) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013, to the Arizona SIP.

**SIP Rule 34.J** (Spray Paint and Other Surface Coating Operations) defines a "photochemically reactive solvent".

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph J now became Paragraph I. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.I (as revised in 1984) were incorporated into new Rule 330 (Volatile Organic Compounds) Section 200 (Definitions). Rule 330 was revised several times by the MCAQD with the most current revision occurring in 2013. The purpose of Rule 330 is "To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds." Rule 330 clarified definitions and established limits for operations involving heat (Section 301 of Rule 330); non-complying solvents (Section 302 of Rule 330); and process lines (Section 303). The rule also requires that emission of VOC be reduced (Section 304 of Rule 303) by incineration, adsorption and use of low VOC containing materials. Exemptions were further limited by identifying exempt industries by using the Standard Industrial Classification (SIC) codes (Section 307 of Rule 330). These revisions make Rule 330 more stringent than SIP Rule 34.J

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.I as approved into the Arizona SIP May 5, 1982 (47 FR 19326) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013, into the Arizona SIP.

**SIP Rule 34.K** (Spray Paint and Other Surface Coating Operations) limits the disposal of photochemically reactive solvents.

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph K now became Paragraph J. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.J (as revised in 1984) were incorporated into new Rule 330 (Volatile Organic Compounds) Section 200 (Definitions). Rule 330 was revised several times by the MCAQD with the most current revision occurring in 2013. The purpose of Rule 330 is "To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds." Rule 330 clarified definitions and established limits for operations involving heat (Section 301 of Rule 330); non-complying solvents (Section 302 of Rule 330); and process lines (Section 303). The rule also requires that emission of VOC be reduced (Section 304 of Rule 303) by incineration, adsorption and use of low VOC containing materials. Exemptions were further limited by identifying exempt industries by using the Standard Industrial Classification (SIC) codes (Section 307 of

Rule 330). VOC containment and disposal were included in Section 306 of Rule 330. These revisions make Rule 330 more stringent than SIP Rule 34.K

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 34.J as approved into the Arizona SIP May 5, 1982 (47 FR 19326) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013 into the Arizona SIP.

**SIP Rule 34.L** (Cutback Asphalt) limited the application of cutback asphalt or an emulsified asphalt containing petroleum solvents. In addition, the rule limited the VOC content of the emulsified asphalts and dust palliatives to no more than three percent (3%) by volume of VOC.

In 1984, the MCAQD revised Rule 34. Paragraph A was deleted. Paragraph L now became Paragraph K. In 1988, the MCAQD revised and renumbered all of the rules. The requirements of Rule 34.K (as revised in 1984) were incorporated into new Rule 340 (Cutback and Emulsified Asphalt). Rule 340 was approved into the Arizona SIP by the EPA on February 1, 1996 (61 FR 3578).

In 2016, the MCAQD determined that there are no emitting facilities within the county for the CTG source category of cutback asphalt. A negative declaration is to be submitted to the EPA stating this fact.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 34.L (Cutback Asphalt) as approved into the Arizona SIP May 5, 1982 (47 FR 19326).

**SIP Rule 35: Incinerators**

SIP Rule 35 (Incinerators) as adopted on August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080) establishes equipment specifications, timing restrictions, informational requirements, performance test requirements, and opacity and particulate standards for the use of incinerators in Maricopa County.

In 1988, the MCAQD revised and renumbered all of the rules. The requirements of SIP Rule 35 were included in new Rule 313. Rule 313 required control equipment and minimum temperatures for incinerators, burn-off ovens and crematories. Alternative operating condition and special operating conditions were added to Rule 313. Emission and opacity standards were included along with operating requirements for nighttime combustion operations. The requirements in Rule 313 were more stringent than SIP Rule 35. Rule 313 as adopted on May 9, 2012, was approved into the Arizona SIP on September 25, 2014 (79 FR 57445).

SIP Rule 313 does not include any provision for hospital/medical/infectious waste incinerators (HMIWI). In April 2017, the MCAQD conducted a review of permits and industries within the jurisdiction of the MCAQD. No hospital/medical/infectious waste incinerators were found to be located within the MCAQD jurisdiction. A negative declaration will be submitted to the EPA stating this fact. The MCAQD is

retaining SIP Rule 313 for incinerators, burn-off ovens and crematories.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 35 as approved into the Arizona SIP on July 27, 1972 (37 FR 15080), from the Arizona SIP. The MCAQD is requesting the EPA to retain the Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 313 (Incinerators, Burn-Off Ovens and Crematories) as approved into the SIP September 25, 2014 (79 FR 57445).

**SIP Rule 41: Monitoring**

**SIP Rule 41.A** (Monitoring) as adopted August 12, 1971, and approved into the Arizona SIP on July 27, 1972 (37 FR 15080) requires the owner or operator of a stationary source to provide, maintain and operate monitoring devices to determine compliance if requested by the Control Officer. SIP Rule 41.A provides for legally enforceable procedures requiring owners or operators of stationary sources to maintain records, as required by a SIP, to determine whether such sources are in compliance with applicable requirements. Rule 41.A mirrors the Arizona Revised Statutes (A.R.S.) Section 36-780 which was approved in the SIP in 1982 (47 FR 26382, June 18, 1982). The A.R.S. is at least as stringent as SIP Rule 41.A.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 41.A as approved into the Arizona SIP on July 27, 1972 (37 FR 15080), from the Arizona SIP. The MCAQD is requesting the EPA to retain Arizona Revised Statutes (A.R.S.) Section 36-780 as approved into the Arizona SIP June 18, 1982 (47 FR 26382).

**SIP Rule 41.B** (Monitoring) as adopted October 2, 1978, and approved into the Arizona SIP on April 12, 1982 (47 FR 15579) requires owners or operators of fossil-fuel-fired steam generators, fluid bed catalytic cracking unit catalyst regenerators, sulfuric acid plant and nitric acid plants (Rule 41.B.3) to install, calibrate and maintain all monitoring equipment (Rule 41.B.8.a) necessary for continuously monitoring opacity, nitrogen oxides, sulfur dioxide, oxygen and carbon dioxide.

Maricopa County Rule 245 (Continuous Source Emission Monitoring), mirrors the requirements in Rule 41.B. Maricopa County Air Quality Regulation, Appendix A (Fossil Fuel-Fired Steam Generators), outlines the procedures used to convert gaseous emission monitoring data from parts per million to g/million cal (lb/million BTU). The EPA has recommended to the MCAQD that SIP Rule 41.B be replaced with Rule 245 and Appendix A.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 41.B as approved into the Arizona SIP on April 12, 1982 (47 FR 15579), from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation II-Permits and Fees, Rule 245 (Continuous Source Emission Monitoring), as adopted November 15, 1993, and Maricopa County Air Pollution Control Regulation, Appendix A (Fossil Fuel-Fired Steam Generators) as adopted July 13, 1988, into the Arizona SIP.

**SIP Rule 42: Testing and Sampling**

**SIP Rule 42** (Testing and Sampling) as adopted August 12 1971 and as approved into the Arizona SIP on July 27, 1972 (37 FR 15080) requires owners of operators of stationary sources to provide reasonable and necessary test openings in the system or stack in order to allow for samples to be obtained. If the existing test openings are inadequate to perform the required testing, the Control Officer shall notify the owner or operator of the requirement to provide the necessary facilities for adequate sampling. The rule does not provide any emission limits or reduce emissions.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 42 as approved into the Arizona SIP on July 27, 1972 (37 FR 15080).

**SIP Rule 74: Public Notification**

**SIP Rule 74** (Public Notification) as adopted June 23, 1980 and approved into the Arizona SIP April 12, 1982 (47 FR 15579) provides for public notification, on a daily basis, of the pollution standard index (PSI) for the concentration level for three pollutants: total suspended particulate matter, carbon monoxide and ozone. The purpose of the PSI was to send a "clear and consistent message to the public by providing nationally uniform information on air quality…" (64 Fed. Reg. 42530, August 4, 1999). The methods of notification include newspapers, radio and television. Rule 100 mirrored SIP Rule 74 until Rule 100 was revised in 2006 to incorporate the EPA revisions for daily reporting to the general public.

In 1999, the EPA revised the daily air quality reporting requirements to the public. These new requirements included the use of specific colors for categories; the addition of new categories and thresholds; and a name change of the PSI to the Air Quality Index ("AQI") (64 Fed. Reg. 42530, August 4, 1999). The MCAQD Rule 100, as adopted on March 15, 2006, was revised to include the text revision from "Pollution Standard Index (PSI)" to "Air Quality Index (AQI)". (12 A.A.R. 1182, April 14, 2006). Rule 100 was approved into the Arizona SIP on November 5, 2012 (77 FR 66405). SIP Rule 100 was more stringent than SIP Rule 74 because the AQI included the additional reporting requirements; the use of specific colors for categories; and the addition of new categories and thresholds. On February 3, 2016, the MCAQD revised Rule 100 as part of the NSR revisions.

The MCAQD is requesting the EPA to rescind (remove) SIP Rule 74 as approved into the Arizona SIP April 12, 1982 (47 FR 15579) and SIP Rule 100 as approved into the Arizona SIP on November 5, 2012 (77 FR 66405) from the Arizona SIP. The MCAQD is requesting the EPA to approve the Maricopa County Air Pollution Control Regulations, Regulation I-General Provisions, Rule 100 (General Provisions and Definitions) as revised and adopted February 3, 2016, into the Arizona SIP. This rule was submitted to the EPA on May 19, 2016, as part of the NSR SIP submittal.

**SIP Rule 81: Operation**

**SIP Rule 81** (Operation) as adopted August 12, 1971, and approved into the Arizona SIP July 27, 1972 (37 FR 15080) states "Nothing in these Rules and Regulations shall in any manner be construed as authorizing or permitting the creation or maintenance

of a nuisance. SIP Rule 81 does not relate to the SIPs' purpose under the Clean Air Act, Section 110(a) of implementing, maintaining and enforcing the NAAQS. Therefore, Rule 81 does not need to be retained as part of the SIP.

The MCAQD is requesting the EPA to rescind (remove) without replacement in the Arizona SIP, SIP Rule 81 as approved into the Arizona SIP July 27, 1972 (37 FR 15080).

**2.1(e) Evidence that the MCAQD followed all of the procedural requirements of the State's laws and constitution in conducting and completing the adoption/issuance of the plan.**

The MCAQD completed all of the following procedural requirements for obtaining approval of the SIP revision:

(1) Conducted Stakeholder Meeting on April 10, 2017 to discuss the SIP revision (Maricopa County Air Quality Department Notice of Stakeholder Meeting);

(2) Provided the public 30 days to comment on the SIP revision (Maricopa County Board of Supervisors' Public Hearing Notice; the Arizona Business Gazette Affidavit of Publication; and the Record Reporter Affidavit of Publication); and

(3) Obtained final approval of the SIP revision from the Board of Supervisors (Excerpt of the Certified Minutes from the Maricopa County Board of Supervisors' Public Hearing)

*See* Appendices 1, 5 and 6.

**2.1(f) Evidence that public notice was given of the proposed change consistent with procedures approved by the EPA, including the date of publication of such notice.**

*See* Appendix 5 for evidence that the MCAQD gave public notice of the SIP revision, including the date of publication of such notice.

**2.1(g) Certification that public hearing(s) were held in accordance with the information provided in the public notice and the State's laws and constitution, if applicable and consistent with the public hearing requirements in 40 CFR 51.102.**

*See* Appendices 1, 2 and 5.

**2.1(h) Compilation of public comments and the MCAQD's response.**

The MCAQD did not receive any public comments.

**2.2 Technical Support:**

**2.2(a) Identification of all regulated pollutants affected by the plan.**

The regulated pollutants affected by this plan include Particulate Matter 2.5 ($PM_{2.5}$),

Particulate Matter 10 ($PM_{10}$), Sulfur Oxides (Sulfur Dioxide-$SO_2$), Ozone, Carbon Monoxide (CO), Nitrogen Oxides (Nitrogen Dioxide-$NO_2$), and Lead (Pb).

**2.2(b) Identification of the locations of affected sources including the EPA attainment/nonattainment designation of the locations and the status of the attainment plan for the affected areas(s).**

The rules listed in Section 2.1(b) of this document are potentially applicable to all areas and sources under the MCAQD's jurisdiction. The EPA attainment/nonattainment designations for all or parts of Maricopa County are:

| | |
|---|---|
| $PM_{10}$ Classification: | Serious (As of June 6, 2007) |
| Carbon Monoxide Classification: | Attainment (As of April 2005) |
| Ozone Classification: | Moderate (As of May 4, 2016) |
| $PM_{2.5}$ Classification: | Unclassified/Attainment (As of March 2011) |

**2.2(c) Quantification of the changes in plan allowable emissions from the affected sources; estimates of changes in current actual emissions from affected sources or, where appropriate, quantification of changes in actual emissions from affected sources through calculations of the differences between certain baseline levels and allowable emissions anticipated as a result of the revision.**

The rescission (removal) of the SIP rules from the Arizona SIP, as identified in Section 2.1(b) of this document, will not result in any changes to allowable or actual emissions from existing sources.

The approval of the rules, as identified in Section 2.1(b) of this document, into the Arizona SIP will not result in any changes to allowable or actual emissions from existing sources.

**2.2(d) The MCAQD's demonstration that the national ambient air quality standards, prevention of significant deterioration increments, reasonable further progress demonstration, and visibility, as applicable, are protected if the plan is approved and implemented.**

The SIP rules as identified in Section 2.1(b) of this document, are being requested to be rescinded (removed) because the rule(s):

1. Does (Do) not provide specific authority to the officers of the county to fulfill any particular regulatory function, nor establish any type of emissions standard or address any particular requirement for SIPs under the CAA;
2. Does (Do) not relate to the implementation, maintenance, or enforcement of the NAAQS or achieve emissions reductions;
3. Lack specific emissions limits or other elements necessary for enforcement; or
4. Have been revised and adopted by the Board of Supervisors.

The rules as identified in Section 2.1(b) of this document are being requested to be approved into the Arizona SIP because the rules:

1. Relate to the implementation, maintenance, or enforcement of the NAAQS or achieve emissions reductions;
2. Establish specific emissions limits or other elements necessary for enforcement;
3. Provide specific authority to the officers of the county to fulfill a particular regulatory function; and
4. Have been revised and adopted by the Board of Supervisors.

The rescission (removal) of SIP-approved Maricopa County Air Pollution Control Regulations and the Maricopa County Air Pollution Control Regulations that are requested to be approved by the EPA into the Arizona SIP will not affect the NAAQS, prevention of significant deterioration increments, reasonable further progress demonstration or visibility. Because of the inclusion of specific authorities for regulatory functions, emission limits or other elements necessary for the enforcement of the rules, the replacement of the current SIP-approved Maricopa County Air Pollution Control Regulations with the current Maricopa County Air Pollution Control Regulations actually increases the stringency and enforceability of the federal regulations.

Refer to Table 1: *Summary and Justification of the Requested Action* in Section 2.1(d) of this document.

**2.2(e) Modeling information required to support the proposed revision, including input data, output data, models used, justification of model selections, ambient monitoring data used, meteorological data used, justification for use of offsite data (where used), modes of models used, assumptions, and other information relevant to the determination of adequacy of the modeling analysis.**

Not applicable because no new emissions limitations or alterations to existing emission limitations are being implemented.

**2.2(f) Evidence, where necessary, that emission limitations are based on continuous emission reduction technology.**

Not applicable because no new emission limitation or alterations to existing emission limitations are being implemented.

**2.2(g) Evidence that the plan contains emission limitations, work practice standards and recordkeeping/reporting requirements, where necessary, to ensure emission levels.**

The emission limitations, work practices and recordkeeping and reporting requirements have already been addressed during each rulemaking previously conducted by the MCAQD. Rule 100, Rule 210, Rule 220, Rule 230, Rule 245, Rule 313, Rule 322, Rule 323, Rule 330, Rule 331, Rule 333, Rule 335, Rule 336 and Appendix A are currently in effect. Therefore no additional emission limitations, work practice standards, recordkeeping or reporting is required to justify the rescission (removal) of SIP Rule 22, SIP Rule 27, SIP Rule 28, SIP Rule 32 A-H and J-K, SIP Rule 34 A-L, SIP Rule 35, SIP Rule 41.A and B, SIP Rule 42, SIP Rule 74, SIP Rule

81, SIP Rule 100, SIP Rule 220, SIP Rule 322, SIP Rule 323, SIP Rule 331, SIP Rule 333, SIP Rule 335, SIP Rule 336, SIP Rule 340 and SIP Rule 510.

**2.2(h) Compliance/enforcement strategies, including how compliance will be determined in practice.**

The compliance and enforcement strategies have already been addressed during each rulemaking previously conducted by the MCAQD. Rule 100, Rule 210, Rule 220, Rule 230, Rule 245, Rule 313, Rule 322, Rule 323, Rule 330, Rule 331, Rule 333, Rule 335, Rule 336 and Appendix A are currently in effect. Therefore no additional compliance or enforcement strategy is required for the rescission (removal) of SIP Rule 22, SIP Rule 27, SIP Rule 28, SIP Rule 32 A-H and J-K, , SIP Rule 34 A-L, SIP Rule 35, SIP Rule 41.A and B, SIP Rule 42, SIP Rule 74, SIP Rule 81, SIP Rule 100, SIP Rule 220, SIP Rule 322, SIP Rule 323, SIP Rule 331, SIP Rule 333, SIP Rule 335, SIP Rule 336, SIP Rule 340 and SIP Rule 510.

**2.2(i) Special economic and technological justifications required by any applicable EPA policies, or an explanation of why such justifications are not necessary.**

The economic and technological justifications have already been addressed during each rulemaking previously conducted by the MCAQD. Rule 100, Rule 210, Rule 220, Rule 230, Rule 245, Rule 313, Rule 322, Rule 323, Rule 330, Rule 331, Rule 333, Rule 335, Rule 336 and Appendix A are currently in effect. Therefore no additional economic or technological justification is required for the rescission (removal) of SIP Rule 22, SIP Rule 27, SIP Rule 28, SIP Rule 32 A-H and J-K, SIP Rule 34 A-L, SIP Rule 35, SIP Rule 41.A and B, SIP Rule 42, SIP Rule 74, SIP Rule 81, SIP Rule 100, SIP Rule 220, SIP Rule 322, SIP Rule 323, SIP Rule 331, SIP Rule 333, SIP Rule 335, SIP Rule 336, SIP Rule 340 and SIP Rule 510.

## SECTION 3: CONCLUSION

This SIP revision is being submitted to the ADEQ to submit to the EPA for approval of the rescission (removal) without replacement of SIP rules and for the EPA approval to include current Maricopa County Air Pollution Control Regulations into the Arizona SIP.

The MCAQD requests the ADEQ to submit to the EPA the following SIP-approved rules for approval of the rescission (removal) from the Arizona SIP, as these rules do not provide specific authority to the officers of the county to fulfill any particular regulatory function; establish any type of emissions standard or address any particular requirement for SIPs under the CAA; relate to the implementation, maintenance, or enforcement of the NAAQS or achieve emissions reductions; lack specific emissions limits or other elements necessary for enforcement; or are not the current versions of the Maricopa County Air Pollution Control Regulations:

- SIP Rule 22 (Permit Denial-Action-Transfer-Expiration-Posting-Revocation-Compliance)
- SIP Rule 27 (Performance Tests)
- SIP Rule 28 (Permit Fees)
- SIP Rule 32.A (Odors and Gaseous Emissions)
- SIP Rule 32.B (Odors and Gaseous Emissions)

- SIP Rule 32.C (Odors and Gaseous Emissions)
- SIP Rule 32.D (Odors and Gaseous Emissions)
- SIP Rule 32.E (Odors and Gaseous Emissions)
- SIP Rule 32.F (Odors and Gaseous Emissions, Sulfuric Acid Plants)
- SIP Rule 32.G (Odors and Gaseous Emissions, Other Industries)
- SIP Rule 32.H (Odors and Gaseous Emissions, Fuel Burning For Producing Electric Power (Sulfur Dioxide))
- SIP Rule 32.J (Odors and Gaseous Emissions)
- SIP Rule 32.K (Odors and Gaseous Emissions)
- SIP Rule 34.A (Organic Solvents-Volatile Organic Compounds (VOC)
- SIP Rule 34.B (Organic Solvents-Volatile Organic Compounds (VOC), Degreasers, General Provisions)
- SIP Rule 34.C (Organic Solvents-Volatile Organic Compounds (VOC), Metal Cleaning Operations)
- SIP Rule 34.D.1 and D.2 (Organic Solvents-Volatile Organic Compounds (VOC), Dry Cleaning)
- SIP Rule 34.E (Organic Solvents-Volatile Organic Compounds (VOC), Spray Paint and Other Surface Coating Operations)
- SIP Rule 34.F (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.G (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.H (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.I (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.J (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.K (Organic Solvents-Volatile Organic Compounds (VOC))
- SIP Rule 34.L (Organic Solvents-Volatile Organic Compounds (VOC), Cutback Asphalt)
- SIP Rule 35 (Incinerators)
- SIP Rule 41.A (Monitoring)
- SIP Rule 41.B (Monitoring, Continuously Monitoring and Recording Emissions)
- SIP Rule 42 (Testing and Sampling)
- SIP Rule 74 (Public Notification)
- SIP Rule 81 (Operation)
- SIP Rule 100 (General Provisions and Definitions), Section 108 (Hearing Board)
- SIP Rule 100 (General Provisions and Definitions), Section 500 (Monitoring and Records)
- SIP Rule 220 (Permits to Operate)
- SIP Rule 322 (Power Plant Operations)
- SIP Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources)
- SIP Rule 331 (Solvent Cleaning)
- SIP Rule 333 (Petroleum Solvent Dry Cleaning)
- SIP Rule 335 (Architectural Coatings)
- SIP Rule 336 (Surface Coating Operations)
- SIP Rule 340 (Cutback and Emulsified Asphalt)
- SIP Rule 510 (Air Quality Standards)

The following Maricopa County Air Pollution Control Regulations relate to the implementation, maintenance, or enforcement of the NAAQS or achieve emissions reductions; establish specific emissions limits or other elements necessary for enforcement; provide specific authority to the officers of the county to fulfill any particular regulatory function; and have recently been revised and adopted

by the Board of Supervisors. The MCAQD requests the ADEQ to submit to the EPA to approve the following Maricopa County Air Pollution Control Regulations into the Arizona SIP:

- Rule 100 (General Provisions and Definitions) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the New Source Review ("NSR") SIP
- Rule 210 (Title V Permit Provisions) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the NSR SIP
- Rule 220 (Non-Title V Permit Provisions) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the NSR SIP
- Rule 230 (General Permits) as revised and adopted February 3, 2016. Submitted to the EPA on May 19, 2016, as part of the NSR SIP
- Rule 245 (Continuous Source Emission Monitoring) as revised and adopted November 15, 1993
- Rule 313 (Incinerators, Burn-Off Ovens, and Crematories) as revised and adopted May 9, 2012. Approved in the Arizona SIP September 25, 2014 (79 FR 57445)
- Rule 322 (Power Plant Operations) as revised and adopted November 2, 2016. Submitted to the EPA on December 19, 2016, as part of the Ozone SIP
- Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as revised and adopted November 2, 2016. Submitted to the EPA on December 19, 2016, as part of the Ozone SIP
- Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013
- Rule 331 (Solvent Cleaning) as revised and adopted September 25, 2013
- Rule 333 (Petroleum Solvent Dry Cleaning) as revised and adopted September 25, 2013
- Rule 335 (Architectural Coatings) as revised and adopted September 25, 2013
- Rule 336 (Surface Coating Operations) as revised and adopted November 2, 2016. Submitted to the EPA on December 19, 2016, as part of the Ozone SIP
- Appendix A (Fossil Fuel-Fired Steam Generators) as adopted July 13, 1988

A summary of the requested EPA action is included in Table 2 below.

**Table 2: Summary of the Requested Action**

| **Rescind (Remove) SIP Rule from the Arizona SIP** | **Approve the Maricopa County Air Pollution Control Regulation(s) into the Arizona SIP** |
|---|---|
| SIP Rule 22: Permit Denial-Action-Transfer-Expiration-Posting-Revocation-Compliance | Rule 210 (Title V Permit Provisions) as adopted February 3, 2016, and submitted to the EPA on May 19, 2016, as part of the NSR SIP.<br><br>Rule 220 (Non-Title V Permit Provisions) as adopted February 3, 2016, and submitted to the EPA on May 19, 2016, as part of the NSR SIP.<br><br>Rule 230 (General Permits) as adopted February 3, 2016, and submitted to the EPA on May 19, 2016, as part of the NSR SIP. |
| SIP Rule 27: Performance Tests | No replacement. |

| | |
|---|---|
| SIP Rule 28: Permit Fees | No replacement. |
| SIP Rules 32.A, 32.B, 32.C, 32.D, 32.E, 32.G and 32.J: Odors and Gaseous Emissions | No replacement. |
| SIP Rule 32.F: Odors and Gaseous Emissions | No replacement. |
| SIP Rule 32.H: Odors and Gaseous Emissions | Rule 322 (Power Plant Operations) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 32.K: Odors and Gaseous Emissions | Rule 322 (Power Plant Operations) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP.<br><br>Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 34.A: Organic Solvents-Volatile Organic Compounds (VOC) | No replacement. |
| SIP Rule 34.B: Organic Solvents-Volatile Organic Compounds (VOC), (Degreasers, General Provisions) | Rule 331 (Solvent Cleaning) as adopted September 25, 2013. |
| SIP Rule 34.C: Organic Solvents-Volatile Organic Compounds (VOC), (Metal Cleaning Operations) | Rule 331 (Solvent Cleaning) as adopted September 25, 2013. |
| SIP Rule 34.D.1: Organic Solvents-Volatile Organic Compounds (VOC) | No replacement. |
| SIP Rule 34.D.2: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 333 (Petroleum Solvent Dry Cleaning) as adopted September 25, 2013. |
| SIP Rule 34.E.1: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations) | No replacement. |
| SIP Rule 34.E.2: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations) | Rule 335 (Architectural Coatings) as adopted September 25, 2013. |

| | |
|---|---|
| SIP Rule 34.E.3: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations) | No replacement. |
| SIP Rule 34.E.4: Organic Solvents-Volatile Organic Compounds (VOC), (Spray Paint and Other Surface Coating Operations) | Rule 336 (Surface Coating Operations) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 34.F: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. |
| SIP Rule 34.G: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. |
| SIP Rule 34.H: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. |
| SIP Rule 34.I: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. |
| SIP Rule 34.J: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. |
| SIP Rule 34.K: Organic Solvents-Volatile Organic Compounds (VOC) | Rule 330 (Volatile Organic Compounds) as adopted September 25, 2013. |
| SIP Rule 34.L: Organic Solvents-Volatile Organic Compounds (VOC), (Cutback Asphalt) | No replacement. |
| SIP Rule 35: Incinerators | Retain SIP Rule 313 (Incinerators, Burn-Off Ovens, and Crematories) as adopted May 9, 2012. Approved in the Arizona SIP September 25, 2014 (79 FR 57445). |
| SIP Rule 41.A: Monitoring | No replacement. |
| SIP Rule 41.B: Monitoring | Rule 245 (Continuous Source Emission Monitoring) as adopted November 15, 1993.<br><br>Appendix A (Fossil Fuel-Fired Steam) as adopted July 13, 1988. |
| SIP Rule 42: Testing and Sampling | No replacement. |
| SIP Rule 74: Public Notification | Rule 100 (General Provisions and Definitions) as adopted February 3, 2016, and submitted to the EPA on May 19, 2016, as part of the NSR SIP. |
| SIP Rule 81: Operation | No replacement. |

| | |
|---|---|
| SIP Rule 100: General Provisions and Definitions, Sections 108 and 500 | Rule 100 (General Provisions and Definitions) as adopted February 3, 2016, and submitted to the EPA on May 19, 2016, as part of the NSR SIP. |
| SIP Rule 220: Permits to Operate | Rule 220 (Non-Title V Permit Provisions) as adopted February 3, 2016, and submitted to the EPA on May 19, 2016, as part of the NSR SIP. |
| SIP Rule 322: Power Plant Operations | Rule 322 (Power Plant Operations) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 323: Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources | SIP Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 331: Solvent Cleaning | Rule 331 (Solvent Cleaning) as adopted September 25, 2013. |
| SIP Rule 333: Petroleum Solvent Dry Cleaning | Rule 333 (Petroleum Solvent Dry Cleaning) as adopted September 25, 2013. |
| SIP Rule 335: Architectural Coatings | Rule 335 (Architectural Coatings) as adopted September 25, 2013. |
| SIP Rule 336: Surface Coating Operations | Rule 336 (Surface Coating Operations) as adopted November 2, 2016, and submitted to the EPA on December 19, 2016, as part of the Ozone SIP. |
| SIP Rule 340: Cutback and Emulsified Asphalt | No replacement. |
| SIP Rule 510: Air Quality Standards | No replacement. |

## APPENDIX 1: EXCERPT OF THE CERTIFIED MINUTES FROM THE BOARD OF SUPERVISORS' PUBLIC HEARING CONDUCTED ON SEPTEMBER 6, 2017

***COUNTY OF MARICOPA***
***State of Arizona***

***Office of the Clerk***
***Board of Supervisors***

***State of Arizona*** ***) ss.***
***County of Maricopa*** ***)***

*I,* ***Fran McCarroll, Clerk of the Board of Supervisors,*** *do hereby certify that the following is a true and correct statement of the agenda item and the action taken by the* ***Board of Supervisors*** *at their meeting held on* ***September 6, 2017****.*

**7. REVISIONS TO ARIZONA'S STATE IMPLEMENTATION PLAN (SIP)**

Pursuant to A.R.S. §49-479(b), convene the scheduled public hearing, to solicit comments and consider the adoption of the submittal to the U.S. Environmental Protection Agency (EPA) of revisions to the Maricopa County portion of the Arizona SIP. To bring the SIP up-to-date with current Maricopa County Air Pollution Control Regulations, the Maricopa County Air Quality Department (MCAQD) is proposing the rescission (removal) from the Arizona SIP, the following SIP approved rules: 22, 27, 28, 32 Paragraphs A-H and J-K, 34, 35, 41 Paragraphs A and B, 42, 74, and 81. At the same time, the MCAQD is proposing for inclusion into the Arizona SIP, the following previously adopted rules: 100, 210, 220, 230, 245, 313, 322, 323, 330, 331, 333, 335, 336 and Appendix A. No revisions were made to the regulations in this request to the EPA to update the Arizona SIP. The MCAQD is only proposing rescission (removal) and inclusion of rules to revise the Arizona SIP. Following the public hearing, the Board is requested to approve the submittal to the EPA to revise the Arizona SIP. Upon Board approval, this item will become effective September 6, 2017.

Congress established the basic structure of the Clean Air Act (CAA) in 1970. The CAA requires the EPA to establish national ambient air quality standards (NAAQS) for common and widespread pollutants based on the most current science available. For areas that were determined to be in nonattainment of the NAAQS, the state was required to adopt federally enforceable SIPs in order to achieve and maintain air quality and meet the federally established air quality standards. In order to comply with the CAA, the MCAQD submitted rules under the jurisdiction of the MCAQD to the Arizona Department of Environmental Quality (ADEQ), the designated EPA contact, for inclusion in the original SIP submittal made to the EPA on January 28, 1972. Through the years, the MCAQD has revised the rules submitted in the original SIP and has submitted such revised rules for inclusion in the SIP. The rules in this request have been previously adopted by the Board of Supervisors. Permit fees are not changing due to this action. No emission limitations, work practices and recordkeeping or reporting requirements are changing due to this action. (C-85-18-001-M-00)

Motion to approve by Supervisor Gallardo, seconded by Supervisor Gates

Ayes: Barney, Chucri, Gates, Hickman, Gallardo

***IN WITNESS WHEREOF,*** *I have hereunto set my hand and affixed the Official Seal of the County of Maricopa. Done at Phoenix, the County Seat, on September 6, 2017.*

Fran McCarroll

***Clerk of the Board of Supervisors***

*File*

## APPENDIX 2: RELEVANT ARIZONA REVISED STATUTES §§49-112, 49-471.09, 49-474, and 49-479

A. When authorized by law, a county may adopt a rule, ordinance or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all of the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition.
2. There is credible evidence that the rule, ordinance or other regulation is either:

(a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.

(b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

3. Any fee or tax adopted under the rule, ordinance or other regulation will not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

B. When authorized by law, a county may adopt rules, ordinances or other regulations in lieu of a state program that are as stringent as a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if the county demonstrates that the cost of obtaining permits or other approvals from the county will approximately equal or be less than the fee or cost of obtaining similar permits or approvals under this title or any rule adopted pursuant to this title. If the state has not adopted a fee or tax for similar permits or approvals, the county may adopt a fee when authorized by law in the rule, ordinance or other regulation that does not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

C. If a county has adopted rules, ordinances or other regulations pursuant to subsection B of this section and at any time cannot comply with subsection B of this section, the county shall give notice of noncompliance to the director. The county shall file that notice with the secretary of state for publication in the next issue of the Arizona administrative register at no cost to the county. If the county does not comply with subsection B of this section within one year after publication of the notice in the Arizona administrative register, the director shall provide written notice to and assert regulatory jurisdiction over those persons and entities subject to the affected county rules, ordinances or other regulations.

D. Except as provided in chapter 3, article 3 of this title, before adopting or enforcing any rule, ordinance or other regulation pursuant to subsection A or B of this section, the county shall comply with all of the following:

1. File with the secretary of state a written statement including a summary of the proposed rule, ordinance or other regulation and a demonstration of the grounds and evidence of compliance with subsection A or B of this section. The summary shall provide the name of the person with the county to contact with questions or comments. The secretary of state shall publish the written statement in the next issue of the Arizona administrative register at no cost to the county. The county shall publish notice of the availability of the complete summary and the demonstration in other newspapers as may be required by this title and shall make the text of any proposed environmental rule, ordinance or other regulation available to the public at the same time it files the written summary of the environmental rule, ordinance or other regulation with the secretary of state as provided in this paragraph.

2. Provide at least thirty days' opportunity for comment by the public after publication of the summary as prescribed by paragraph 1 of this subsection. The county shall accept written comments on the proposed rule, ordinance or regulation and the written demonstration.
3. Respond in writing and make available to the public for a reasonable cost the county's responses to the written comments submitted by the public pursuant to paragraph 2 of this subsection.
4. Provide for a public hearing at the request of the authorized county officer or if there is sufficient public interest. The county shall publish the notice of any public hearing at least twenty days prior to the hearing. The county shall submit the notice of the public hearing to the secretary of state for publication in the next issue of the Arizona administrative register at no cost to the county. The county shall publish notice of any public hearing required pursuant to this paragraph in any newspaper as prescribed by this title or county ordinance. The county shall select a time and location for the public hearing that affords a reasonable opportunity for the public to participate.

E. A county is not required to comply with subsection D, paragraphs 2, 3 and 4 of this section before it adopts or enforces a rule, ordinance or other regulation if the rule, ordinance or other regulation only adopts by reference an existing state or federal rule or law that provides greater regulatory flexibility for regulated parties and otherwise satisfies the requirements prescribed in subsection B of this section.

F. Until June 30, 1995, a person may file with the clerk of the board of supervisors for that county a petition challenging a county rule, ordinance or other regulation adopted before July 15, 1994 for compliance with the criteria set forth in subsection A or B of this section. The petition shall contain the grounds for challenging the specific county rule, ordinance or other regulation. Within one year after the petition is filed, the board of supervisors shall review the challenged rule, ordinance or other regulation and make a written demonstration of compliance with the criteria set forth in subsection A or B of this section and challenged in the petition. Any rules, ordinances or other regulations that have been challenged and for which the board of supervisors has not made the written demonstration within one year of the filing of the petition required by this section become unenforceable as of that date. If a county has already made a written demonstration under section 49-479, subsection C, for a rule, ordinance or regulation, the person filing the petition shall state the specific grounds in the petition why that demonstration does not meet the requirements of this section.

G. A rule, ordinance or other regulation adopted pursuant to subsection A of this section may not be invalidated subsequent to its adoption on the grounds that the economic feasibility analysis is insufficient or inaccurate if a county makes a good faith effort to comply with the economic feasibility requirement of subsection A, paragraph 2, subdivision (a), of this section and has explained in the written statement, made public pursuant to subsection D of this section, the methodology used to satisfy the economic feasibility requirement.

H. This section shall not apply to any rule, ordinance or other regulation adopted by a county pursuant to:
1. Title 36 for which the state has similar statutory or rule making authority in this title.
2. Section 49-391.
3. Chapter 3, article 8 of this title.
4. Chapter 4, article 3 of this title and section 49-765.
5. Nonsubstantive rules relating to the application process which have a de minimis economic effect on regulated parties.

**49-471.09. County rule or ordinance making record**

A. A control officer shall maintain for public inspection an official rule or ordinance making record for each proposed rule or ordinance for which a notice is published in the register and each final rule or ordinance filed with the office of the secretary of state.
B. The county rule or ordinance making record shall contain all of the following:
1. Copies of all publications in the register with respect to the rule or ordinance.
2. All written petitions, requests, submissions and comments received by the county and all other written materials considered or prepared by the control officer in connection with the rule or ordinance.
3. Any official transcript of oral presentations made in the proceeding on which the rule or ordinance is based, and any tape recording or stenographic record of those presentations, and any memorandum summarizing the contents of those presentations.
4. A copy of any materials submitted to the board of supervisors.
5. A copy of the final rule or ordinance adopted by the board of supervisors and the preamble, concise explanatory statement and response to comments.

**49-474. County control boards**

The board of supervisors of each county may authorize the board of health or health department of their respective counties in cooperation with the department of environmental quality to:
1. 1. Study the problem of air pollution in the county.
2. 2. Study possible effects on adjoining counties.
3. 3. Cooperate with chambers of commerce, industry, agriculture, public officials and all other interested persons or organizations.
4. 4. Hold public hearings if in their discretion such action is necessary.
5. 5. The board of supervisors by resolution may establish an air pollution control district.

**49-479. Rules; hearing**

A. The board of supervisors shall adopt such rules as it determines are necessary and feasible to control the release into the atmosphere of air contaminants originating within the territorial limits of the county or multi-county air quality control region in order to control air pollution, which rules, except as provided in subsection C shall contain standards at least equal to or more restrictive than those adopted by the director. In fixing such standards, the board or region shall give consideration but shall not be limited to:
1. The latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on health and welfare which may be expected from the presence of an air pollution agent, or combination of agents in the ambient air, in varying quantities.
2. Atmosphere conditions and the types of air pollution agent or agents which, when present in the atmosphere, may interact with another agent or agents to produce an adverse effect on public health and welfare.
3. Securing, to the greatest degree practicable, the enjoyment of the natural attractions of the state and the comfort and convenience of the inhabitants.
B. No rule may be enacted or amended except after the board of supervisors first holds a public hearing after twenty days' notice of such hearing. The proposed rule, or any proposed amendment of a rule, shall be made available to the public at the time of notice of such hearing.
C. A county may adopt or amend a rule, emission standard, or standard of performance that is as stringent or more stringent than a rule, emission standard or standard of performance for similar

sources adopted by the director only if the county complies with the applicable provisions of section 49-112.

D. All rules enacted pursuant to this section shall be made available to the public at a reasonable charge upon request.

## APPENDIX 3: SIP-APPROVED MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS REQUESTED TO BE RESCINDED (REMOVED) FROM THE ARIZONA SIP

**For the purpose of this document ONLY, strike-outs indicate the SIP-approved Maricopa County Air Pollution Control Regulations that are requested to be rescinded (removed) from the Arizona SIP.**

- SIP Rule 22 (Permit Denial-Action-Transfer-Expiration-Posting-Revocation-Compliance) as adopted on August 12, 1971. Submitted to the EPA by the State of Arizona on January 28, 1972, and approved into the SIP July 27, 1972 (37 FR 15080)
- SIP Rule 27 (Performance Tests) as adopted on June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP April 12, 1982 (47 FR 15579)
- SIP Rule 28 (Permit Fees) as adopted on March 8, 1982. Submitted to the EPA by the State of Arizona on March 8, 1982, and approved into the SIP June 18, 1982 (47 FR 26382)
- SIP Rule 32.A (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.B (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.C (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.D (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.E (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.F (Odors and Gaseous Emissions, Sulfuric Acid Plants) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.G (Odors and Gaseous Emissions, Other Industries) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.H (Odors and Gaseous Emissions, Fuel Burning For Producing Electric Power (Sulfur Dioxide)) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 32.J (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)

- SIP Rule 32.K (Odors and Gaseous Emissions) as adopted May 30, 1972. Submitted to the EPA by the State of Arizona on May 30, 1972 and June 23, 1980, and approved into the SIP July 27, 1972 (37 FR 15081) and April 12, 1982 (47 FR 15579)
- SIP Rule 34.A (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.B (Organic Solvents-Volatile Organic Compounds (VOC), Degreasers, General Provisions) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.C (Organic Solvents-Volatile Organic Compounds (VOC), Metal Cleaning Operations) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.D.1 and 2 (Organic Solvents-Volatile Organic Compounds (VOC), Dry Cleaning) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.E (Organic Solvents-Volatile Organic Compounds (VOC), Spray Paint and Other Surface Coating Operations) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.F (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.G (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.H (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.I (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.J (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.K (Organic Solvents-Volatile Organic Compounds (VOC)) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 34.L (Organic Solvents-Volatile Organic Compounds (VOC), Cutback Asphalt) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP May 5, 1982 (47 FR 19326)
- SIP Rule 35 (Incinerators) as adopted on August 12, 1971. Submitted to the EPA by the State of Arizona on May 30, 1972, and approved into the SIP July 27, 1992 (37 FR 15081)
- SIP Rule 41.A (Monitoring) as adopted October 2, 1978. Submitted to the EPA by the State of Arizona on May 26, 1972 and January 18, 1979, and approved into the SIP April 12, 1982 (47 FR 15579)

- SIP Rule 41.B (Monitoring, Continuously Monitoring and Recording Emissions) as adopted as adopted October 2, 1978. Submitted to the EPA by the State of Arizona on May 26, 1972 and January 18, 1979, and approved into the SIP April 12, 1982 (47 FR 15579)
- SIP Rule 42 (Testing and Sampling) as adopted August 12, 1971. Submitted to the EPA by the State of Arizona on May 30, 1972, and approved into the SIP July 27, 1972 (37 FR 15080)
- SIP Rule 74 (Public Notification) as adopted June 23, 1980. Submitted to the EPA by the State of Arizona on June 23, 1980, and approved into the SIP April 12, 1982 (47 FR 15579)
- SIP Rule 81 (Operation) as adopted August 12, 1971. Submitted to the EPA by the State of Arizona on May 26, 1972, and approved into the SIP July 27, 1972 (37 FR 15080)
- SIP Rule 100 (General Provisions and Definitions) Section 500 (Monitoring and Records) as adopted March 15, 2006. Submitted to the EPA by the State of Arizona on August 24, 2012, and approved into the SIP November 5, 2012 (77 FR 66405)
- SIP Rule 100 (General Provisions and Definitions) Section 100 (Hearing Board) as adopted September 25, 2013. Submitted to the EPA by the State of Arizona on December 6, 2013, and approved into the SIP August 10, 2015 (80 FR 47859)
- SIP Rule 220 (Permits to Operate) as adopted July 13, 1988. Submitted to the EPA by the State of Arizona on January 4, 1990, and approved into the SIP on January 6, 1992 (57 FR 354)
- SIP Rule 322 (Power Plant Operations) as adopted October 17, 2007. Submitted to the EPA by the State of Arizona on January 9, 2008. Submitted to the EPA by the State of Arizona on January 9, 2008, and approved into the SIP October 14, 2009 (74 FR 52693)
- SIP Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as adopted October 17, 2007. Submitted to the EPA by the State of Arizona on January 9, 2008. Submitted to the EPA by the State of Arizona on January 9, 2008, and approved into the SIP October 14, 2009 (74 FR 52693)
- SIP Rule 331 (Solvent Cleaning) as adopted April 21, 2004. Submitted to the EPA by the State of Arizona on July 28, 2004, and approved into the SIP December 21, 2004 (69 FR 76417)
- SIP Rule 333 (Petroleum Solvent Dry Cleaning) as adopted June 19, 1996. Submitted to the EPA by the State of Arizona on February 26, 1997, and approved into the SIP February 9, 1998 (63 FR 6489)
- SIP Rule 335 (Architectural Coatings) as adopted July 13, 1988. Submitted to the EPA by the State of Arizona on January 4, 1990, and approved into the SIP January 6, 1992 (57 FR 354)
- SIP Rule 336 (Surface Coating Operations) as adopted April 7, 1999. Submitted to the EPA by the State of Arizona on August 4, 1999, and approved into the SIP September 20, 1999 (64 FR 50759)
- SIP Rule 340 (Cutback and Emulsified Asphalt) as adopted September 21, 1992. Submitted to the EPA by the State of Arizona on November 13, 1992, and approved into the SIP February 1, 1996 (61 FR 3578)
- SIP Rule 510 (Air Quality Standards) as adopted November 1, 2006. Submitted to the EPA by the State of Arizona on June 7, 2007, and approved into the SIP November 9, 2009 (74 FR 57612)

**For the purpose of this document ONLY, strike-outs indicate the SIP-approved Maricopa County Air Pollution Control Regulations that are requested to be rescinded (removed) from the Arizona SIP.**

**SIP Rule 22: Permit Denial-Action-Transfer-Expiration-Posting-Revocation-Compliance**

~~A. The Control Officer shall deny an Installation Permit or an Operating Permit if the applicant does not show that every such machine, equipment, incinerator, device or other article, the use of which may cause or contribute to air pollution, or the use of which may eliminate or reduce or control the emission of air pollutants, is so designed, controlled, or equipped with such air pollution control equipment, that it may be expected to operate without emitting or without causing to be emitted air contaminants in violation of the provisions of these Rules and Regulations, or those of the State Board of Health (Arizona Revised Statute 36-779.02)~~

~~B. Prior to acting on an application for an Operating Permit, the Control Officer pursuant to Rule 42 of these Regulations may require the applicant to provide and maintain such facilities as are necessary for sampling and testing purposes in order to secure information that will disclose the nature, extent, quantity or degree of air contaminants discharged into the atmosphere from the machine, equipment, incinerator, device or other article described in the Installation Permit.~~

~~C. In acting upon an application for an Operating Permit, if the Control Officer finds that such machine, equipment, incinerator, device, or other article described in these Rules and Regulations has been constructed not in accordance with the Installation Permit, he shall deny the application for such Operating Permit. The Control Officer shall not accept any further application for an Operating Permit for such machine, equipment, incinerator, device or other article so constructed until he finds that such machine, equipment, incinerator, device or other article has been reconstructed in accordance with the Installation Permit. (Arizona Revised Statute 36-779.02)~~

~~D. Non-Transferable – An Installation Permit or an Operating Permit shall not be transferable, whether by operation of law or otherwise, either from one piece of equipment to another, or from one person to another. (Arizona Revised Statute 36-779.04)~~

~~E. Expiration – An Installation Permit shall expire two (2) years from the date of its issuance if no action has been initiated on such permit.~~

~~F. Posting of Permit – A person who has been granted an Operating Permit, shall firmly affix such permit, an approved facsimile of such permit, or other approved identification bearing the permit number upon such machine, equipment, incinerator, device or other article for which the Operating Permit is issued in such a manner as to be clearly visible and accessible. In the event that such machine, equipment, incinerator, device or other article is so constructed or operated that such permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of such machine, equipment, incinerator, device or other article, or maintained readily available at all times on the operating premises. (Arizona Revised Statute 36-779.06)~~

~~G. Permit Revocation~~

1. ~~The Control Officer may revoke a permit if he determines, by competent evidence, that the nature, extent, quantity, or degree of air contaminants discharged into the atmosphere from any equipment covered by the permit is in violation of these Rules and Regulations, or the Rules and Regulations of the State Department of Health.~~

2. ~~The Control Officer shall notify the permittee of such revocation in writing, giving the reasons therefor, and the revocation shall become final ten (10) days after notification. Notification may be made in person or by Registered or Certified mail.~~

3. ~~Revocation of a permit may be canceled by the Control Officer anytime [sic] before the revocation becomes final if the permittee has corrected the condition responsible for the permit revocation.~~

4. ~~Revocation of a permit shall be stayed by the permittee's written petition for a hearing, filed in accordance with Regulation VI, Rule 62 of these Regulations.~~

5. ~~Upon revocation becoming final, an Operating Permit shall be issued only on the basis of an application for a new permit.~~

H. ~~Compliance with other laws and regulations – The issuance of any permit by the Control Officer shall not relieve any person from compliance with these Rules and Regulations or any other law or ordinance.~~

**(Maricopa County Health Department, Rules and Regulations, Regulation II-Permits and Fees, Rule 22 (Permits), adopted August 12, 1971)**

## SIP Rule 27: Performance Tests

A. Within sixty (60) days after a source or facility subject to the installation and operating permit requirements of these rules and regulations has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 180 days after initial start-up of such source or facility and at such other times as may be required by the Control Officer, the owner or operator of such source or facility shall conduct performance test(s) and furnish the Control Officer a written report of the results of the test(s).

B. Performance tests shall be conducted and data reduced in accordance with the test method and procedures contained in the Arizona Testing Manual unless the Control Officer:

1. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology.

2. Approves the use of an equivalent method.

3. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, or

4. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by the other means to the Control Officer's satisfaction that the source or facility is in compliance with the standard.

5. Nothing in this section shall be construed to abrogate the Control Officer's authority to require testing.

C. Performance tests shall be conducted under such conditions as the Control Officer shall specify to the plant operator based on representative performance of the source or facility. The owner or operator shall make available to the Control Officer such records as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard.

D. The owner or operator of a permitted source shall provide the Control Officer two (2) weeks prior notice of the performance test to afford Control Officer the opportunity to have an observer present.

E. The owner or operator of a permitted source shall provide, or cause to be provided performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to such facility.

2. Safe sampling platform(s).

3. Safe access to sampling platform(s).

4. Utilities for sampling and testing equipment.

F. ~~Each performance test shall consist of three (3) separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of the three (3) runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one (1) of the three (3) runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance my, upon the Control Officer's approval, be determined using the arithmetic mean of the results of the two (2) other runs.~~

G. ~~Except as provided in subsection H. compliance with the emission limits established in this regulation or as prescribed in permits issued pursuant to this regulation shall be determined only by the performance tests specified in this rule.~~

H. ~~In addition to performance tests specified in this rule, compliance with specific emission limits may be determined by:~~

1. ~~Opacity tests; and~~

2. ~~Emission limit compliance tests specifically designated as such in the regulation establishing the emission limit to be complied with.~~

I. ~~Nothing in this section shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.~~

**(Maricopa County Department of Health Services, Division of Public Health, Maricopa County Bureau of Air Pollution Control, Maricopa County Air Pollution Control Rules and Regulations, Regulation II-Permits and Fees, Rule 27 (Performance Tests), adopted June 23, 1980)**

## SIP RULE 28: PERMIT FEES

3.8.82

~~Rule 28. Permit Fees~~

~~A. Installation Permit Fees~~

~~The fee for an installation permit shall be half of the annual operating permit fee or ten dollars ($10.00) $12.00, whichever is greater.~~

~~B. Annual Operating Permit Fees~~

~~1. One annual operating fee shall be charged from the date of issuance of a permit to use or operate any machine, equipment, device or other article for which a permit is required by these rules and regulations. The total of all annual operating permit fees at one geographical location shall not exceed $1500.00 $1875.00. The permit fee shall be due and paid on or before each anniversary date.~~

~~2. Any processing facility normally operated less than six (6) consecutive months in any annual operating permit period shall be assessed one half the annual operating permit fee.~~

~~3. WHEN A PERMIT FEE IS RECEIVED ON OR AFTER THE DELINQUENT DATE INDICATED ON THE PERMIT APPLICATION, A $15.00 DELINQUENT FEE WILL BE CHARGED.~~

~~4. All permits shall be issued subject to permit fees in the following schedules.~~

~~SCHEDULE FOR PERMIT FEES~~

~~SCHEDULE 1*~~

~~Fuel Burning Equipment Schedule~~
~~(Oil, coal, etc.)~~
~~Based on designed fuel consumption,~~
~~using gross input heating values~~
~~per permit unit~~

| ~~BTU per hour~~ | ~~Annual Operating Permit Fee~~ |
|---|---|
| ~~500,000 to 1,499,999~~ | ~~$ 25.00 31.00~~ |
| ~~1,500,000 to 4,999,999~~ | ~~50.00 63.00~~ |
| ~~5,000,000 to 14,999,999~~ | ~~100.00 125.00~~ |
| ~~15,000,000 to 49,999,999~~ | ~~135.00 169.00~~ |
| ~~50,000,000 to 499,999,999~~ | ~~175.00 219.00~~ |
| ~~500,000,000 or greater~~ | ~~235.00 294.00~~ |

~~*Includes equipment items rated at less than 500,000 BTU each which in the aggregate with other such equipment of the applicant at the same location or property, other than a one or two family residence, total 500,000 BTU gross input or more.~~

~~SCHEDULE 2*~~

~~Fuel Burning Equipment~~
~~(Natural Gas or Liquid Petroleum Gas)~~
~~Based on design fuel consumption,~~
~~using gross input heating~~
~~values per permit unit~~

| ~~BTU per hour~~ | ~~Annual Operating Permit Fee~~ |
|---|---|
| ~~500,000 to 999,999~~ | ~~$ 10.00 12.00~~ |
| ~~1,000,000 to 4,999,999~~ | ~~25.00 31.00~~ |
| ~~5,000,000 or greater~~ | ~~60.00 75.00~~ |

~~*Includes equipment items rated at less than 500,000 BTU each which in the aggregate with other such equipment of the applicant at the same location or property, other than a one or two family residence, total 500,000 BTU gross input or more.~~

~~SCHEDULE 3~~

~~Refuse Burning Equipment~~
~~Based on the maximum horizontal inside cross sectional area of the primary combustion chamber (in square feet)~~

| ~~Area in Square Feet~~ | ~~Annual Operating Permit Fee~~ |
|---|---|
| ~~4 or less .....~~ | ~~$ 40.00 50.00~~ |
| ~~5 to 8 .....~~ | ~~60.00 75.00~~ |
| ~~9 to 26 .....~~ | ~~150.00 188.00~~ |
| ~~27 to 49 .....~~ | ~~200.00 250.00~~ |
| ~~50 or greater .....~~ | ~~300.00 375.00~~ |

~~SCHEDULE 4~~

~~Tanks, Reservoirs or other containers~~
~~Based on capacities in gallons or cubic equivalent per unit~~

| ~~Gallons~~ | | | ~~Annual Operating Permit Fee~~ |
|---|---|---|---|
| ~~250~~ | ~~to~~ | ~~14,999.~~ | ~~$ 12.00 15.00~~ |
| ~~15,000~~ | ~~to~~ | ~~39,999.~~ | ~~25.00 31.00~~ |
| ~~40,000~~ | ~~to~~ | ~~399,999.~~ | ~~45.00 56.00~~ |
| ~~400,000~~ | ~~to~~ | ~~3,999,999.~~ | ~~75.00 94.00~~ |
| ~~4,000,000~~ | ~~or~~ | ~~greater.~~ | ~~135.00 169.00~~ |

~~TANK TRUCK CERTIFICATION STICKER . . . . . 15.00/TANK/YEAR~~

~~SCHEDULE 5~~

~~Motors-Engines~~
~~(Processing)~~

~~Based on total rated horsepower or the equivalent of all motors and engines including but not limited to gasoline, diesel, natural gas, liquid petroleum gas and electricity* included in a permit unit other than those used in mobile equipment.~~

| ~~Horsepower~~ | ~~Annual Operating Permit Fee~~ |
|---|---|
| ~~9 or less~~ | ~~$ 15.00 19.00~~ |
| ~~10 to 24~~ | ~~25.00 31.00~~ |
| ~~25 to 49~~ | ~~50.00 63.00~~ |
| ~~50 to 99~~ | ~~85.00 106.00~~ |
| ~~100 to 199~~ | ~~125.00 156.00~~ |
| ~~200 to 299~~ | ~~175.00 219.00~~ |
| ~~300 to 499~~ | ~~225.00 282.00~~ |
| ~~500 +~~ | ~~300.00 375.00~~ |

~~*Only electric motors used to drive or power any machine, equipment or device or other article that may cause or contribute to air pollution or may be used to prevent or control air contaminants.~~

~~SCHEDULE 6~~

~~Electric Energy Equipment~~
~~(Except Electric Motors)~~
~~Based on Total Kilovolt Ampere (KVA)~~
~~Ratings per permit unit~~

3.8.82

| Kilovolt Amperes (KVA) | | | Annual Operating Permit Fee |
|---|---|---|---|
| 45 | or | less | $ 10.00 12.00 |
| 46 | to | 144 | 20.00 25.00 |
| 145 | to | 449 | 30.00 38.00 |
| 450 | to | 1,449 | 40.00 50.00 |
| 1,450 | to | 2,499 | 60.00 75.00 |
| 2,500 | to | 4,499 | 100.00 125.00 |
| 4,500 | to | 14,499 | 150.00 188.00 |
| 14,500 | or | greater | 200.00 250.00 |

SCHEDULE 7

Miscellaneous

| Category | Annual Operating Permit Fee |
|---|---|
| Each | $ 25.00 31.00 |

SCHEDULE 8

Installation

| | Permit Fee |
|---|---|
| Each | Half of operating permit fee w/ $10.00 minimum $12.00 |

SCHEDULE 9

Controlled Open Burning

| | Permit Fee |
|---|---|
| Temporary | $ 10.00 12.00 |
| Annual | 20.00 25.00 |

SCHEDULE 10

Earth Moving Equipment

| Total Acreage Being Developed | Permit Fee |
|---|---|
| SWIMMING POOL EXCAVATING | $10.00 |
| less than one (1) Acre | $10.00 12.00 |
| One (1) to less than five (5) acres | 20.00 25.00 |
| Five (5) acres or greater | 20.00 plus $2.00 per acre. $2.50 per acre PLUS $25.00 |

**(Maricopa County Department of Health Services, Div. of Public Health, Maricopa County Bureau of Air Pollution Control, Maricopa County Air Pollution Control Rules and Regulations, Regulation II-Permits and Fees, Rule 28 (Permit Fees), adopted March 8, 1982)**

## SIP Rule 32: Odors and Gaseous Emissions (Paragraphs A-H, J and K)

A. No person shall emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

B. No person shall operator or use any machine, equipment or other contrivance for the treatment or processing of animal or vegetable matter, separately or in combination, unless all gases, vapors and gas-entrained effluents from such operation, equipment or contrivance have been:

1. Incinerated to destruction at a temperature of not less than 1,300 degrees Fahrenheit, or processed in a manner determined to be equally or more effective for the control of air pollution.

2. All persons owning or responsible for any process involving the reduction of animal and/or vegetable matter shall install, use, and maintain such devices as are necessary to prevent or control emissions of air contaminants.

C. Materials including, but not limited to, solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution; and where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.

D. Where a stack, vent or other outlet is at such a level that fumes, gas, mist, odor, smoke, vapor or any combination thereof constituting air pollution are discharged to adjoining property, the Air Pollution Control Officer may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

E. No person shall emit hydrogen sulfide from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 0.03 parts per million by volume for any averaging period of 30 minutes or more.

F. No person shall emit into the ambient air any sulfur oxide or sulfuric acid in such manner and amounts as to result in ground level concentrations at any place beyond the premises on which the source is located exceeding those limits shown in the following table:

| Concentration of Sulfur Dioxide | Averaging Time |
|---|---|
| 850 ug/$m^3$ | 1 hour |
| 250 ug/$m^3$ | 24 hours |
| 120 ug/$m^3$ | 72 hours |
| Concentration of Sulfuric Acid and Sulfur Trioxide as expressed as Sulfuric Acid | Averaging Time |

| | |
|---|---|
| ~~15 ug $SO_4/m^3$~~ | ~~24 hours~~ |

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter XII, Air Pollution Control, Regulation III-Control of Air Contaminants, Rule 32 (Odors and Gaseous Emissions), adopted August 9, 1971, effective August 12, 1971)**

~~G. Other Industries~~

~~1. No person shall discharge into the atmosphere from any other industry not covered in other rules of this section reduced sulfur, which includes sulfur equivalent from all sulfur emissions including by not limited to sulfur dioxide, sulfur trioxide and sulfuric acid, in excess of ten (10) percent of the sulfur entering the process as feed.~~

~~H. Fuel Burning Equipment for Producing Electric Power (Sulfur Dioxide)~~

~~1. This rule applies to an installation operated for the purpose of producing electric power with a resulting discharge of sulfur dioxide in the installation's effluent gases.~~

~~2. Steam power generating installations which are new sources shall not emit more than 0.80 pounds of sulfur dioxide, maximum two hour average, per million BTU heat input when oil is fired. Steam power generating installations which are existing sources shall not emit more than 1.0 pounds of sulfur dioxide, maximum two hour average, per million BTU heat input when low sulfur oil is fired.~~

~~3. Steam power generating installations which are existing sources shall not emit more than 2.2 pounds of sulfur dioxide, maximum two hour average, per million BTU heat input when high sulfur oil is fired.~~

~~4. Any permit issued for the operation of an existing source, or any renewal or modification of such a permit, shall include a condition prohibiting the use of high sulfur oil by the permittee, except that if the applicant demonstrates to the satisfaction of the control officer" (a) that sufficient quantities of low sulfur oil are not available for use by the source, and (b) that it has adequate facilities and contingency plans to insure that the sulfur dioxide ambient air quality standards set forth in Regulation VII, Rule 70 will not be violated. The terms of the permit may authorize the use of high sulfur oil under such conditions as are justified. In cases where the permittee is authorized to use high sulfur oil, it shall submit to the bureau monthly reports detaining its efforts to obtain low sulfur oi. When the conditions justifying the use of high sulfur oil no longer exist, the permit shall be modified accordingly.~~

~~5. For purposes of this rule, low sulfur oil means fuel oil containing less than 0.90 percent by weight of sulfur and high sulfur oil means fuel oil containing 0.90 percent or more by weigh of sulfur.~~

~~6. Steam power generating installations which are new sources shall not emit more than 0.80 pounds of sulfur dioxide, maximum two hour average, per million BTU heat input when coal is fired. Steam power generating installations which are existing sources shall~~

~~not emit more than 1.0 pounds of sulfur dioxide. Maximum two hour average, per million BTU heat input when coal is fired.~~

~~J.~~ ~~No person shall operate an asphalt kettle unless he controls air contaminant emissions by good modern practices including but not limited to: (1) maintenance of temperature below both the asphalt flash point and the maximum temperature recommended by the asphalt manufacturer through the use of automatic temperature controls, (2) operation of the Kettle with the lid closed except when charging, (3) pumping the asphalt from the kettle, (4) drawing the asphalt through cocks without dipping, (5) firing of the kettle with a clean burning fuel and (6) maintaining the kettle in clean, properly adjusted and good operating condition.~~

~~K.~~ ~~The discharge of carbon monoxide emissions from any process source shall be effectively controlled by means of secondary combustion.~~

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter XII, Air Pollution Control, Regulation III-Control of Air Contaminants, Rule 32 (Odors and Gaseous Emissions), adopted July 6, 1981)**

## SIP Rule 34: Organic Solvents-Volatile Organic Compounds (VOC)

A. "Volatile organic compound" means any organic compound (except the compounds enumerated below) that, when released into the atmosphere, can remain long enough to participate in photo-chemical reactions. Methane; Ethane; 1,1,1, Trichloroethane (Methyl Chloroform); Trichlorotrifluoroethane (Freon 113); and Methylene Chloride are not considered to be volatile organic compounds for purposes for regulation under Rule 34.

B. Degreasers, General Provisions

1. No person shall use or conduct any vapor phase degreasing operation without minimizing organic solvent vapor diffusion emissions by good modern practices such as but not limited to the use of a free board chiller or other effective device operated and maintained in accordance with solvent and equipment manufacturer's specifications.

2. Spray degreasing shall be conducted in an enclosure equipped with controls which will minimize the emission of organic solvents.

C. Metal Cleaning Operations

1. Effective June 1, 1981, no person shall engage in any organic solvent metal cleaning or degreasing without conforming to the following operating requirements and affixing a conspicuous label in a permanent location listing the following operating requirements:

(a) The degreasing and emission control equipment shall be operated in accordance with solvent and equipment manufacturer's specifications and maintained in good working order.

(b) The cover is to remain closed when the degreaser is not in use. A cover is to be placed over the entrance and over the exit of conveyorized degreasers immediately after the conveyor is shut down and remove just prior to startup.

(c) Degreasing equipment shall not be operated if solvent leaks occur.

(d) Organic solvents, including any waste solvents, shall be stored and disposed of in a manner such that evaporation to the atmosphere is minimized.

(e) The following measures shall be used to minimize organic solvent carryout from degreasers:

(1) Racking the items to be cleaned in a manner which allows full drainage and pouring out any solvent entrained in crevices, holes, indentations, etc. prior to removing the items from the degreaser.

(2) In cold organic solvent degreasers, allow the items to drain until dripping ceases before removal.

(3) In open top vapor degreasers, the items to be cleaned shall not be removed until visually dry.

(4) The items to be cleaned shall be moved into and out of the degreaser at a speed less than 11 feet/minute (3.3 m/Min.).

(f) If the organic solvent is sprayed, the pressure shall not exceed 10 psig, the spray shall be in a continuous fluid stream (not finely atomized), and in open top vapor degreasers, spraying shall not occur above the vapor zone.

(g) In open top vapor degreasers, porous or absorbent materials such as cloth, leather, wood or rope shall not be cleaned.

(h) Organic solvent agitation, where necessary, shall be attained through pump recirculation or by means of a mixer. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds 15 seconds.

(i) In open top vapor degreasers and conveyorized degreasers:

(1) Exhaust ventilation shall not exceed 65 standard cubic feet per minute per square foot of degreaser opening (20m3/min. per m2) unless necessary to comply with industrial safety requirements.

(2) Fans shall not be used near degreasers, and

(3) Water shall not be visually detectable in the organic solvent existing in the water separator.

2. Effective June 1, 1980, no person shall engage in any organic solvent metal cleaning or degreasing with cold cleaners, open top vapor degreasers or conveyorized degreasers unless the following control equipment is utilized:

(a) Cold Organic Solvent Cleaning:

(1) A cover, which if the organic solvent has a Reid Vapor pressure greater than 0.3 psi, or is agitated or is heated must be designed for easy operation.

(2) An apparatus or facility for draining the cleaned items so that the organic solvent is returned to the container. If the Reid vapor pressure of the organic solvent is greater than 0.6 psia, the drainage facility must be internal,

(3) If the Reid vapor pressure of the organic solvent is greater than 0.6 psia, or if the organic solvent is heated above 120°F, (50°C), the cleaner or degreaser must be equipped with one of the following:

(A) A freeboard height yielding a freeboard ration of at least 0.7;

(B) A water cover, providing the organic solvent is insoluble in, and heavier than water;

(C) Any other system determined to be equally effective by the Control Officer.

(b) Open Top Vapor Degreasing

(1) An easily operated cover which does not disturb the vapor zone.

(2) The following safety switches:

(A) A condenser flow switch and thermostat which shuts off the sump heat if the condenser coolant is not circulating or the coolant temperature exceed 85°F (29°C).

(B) A spray safety switch which shuts off the pump spray if the vapor level drops in excess of 4 inches (10 cm).

(3) At lease one of the following control devises:

(A) A freeboard height such that the freeboard ratio is at least 0.75;

(B) A refrigerated freeboard chiller;

(C) A carbon adsorption system, providing the ventilation is at least fifty 50 standard cubic feet per minute per square foot of air/vapor interface area (15m3/min. per m2) and control efficiency of at least ninety percent (90%) of the solvent vapors entering the carbon adsorber.

(D) An enclosed design such that the cover or door opens only when the dry item is actually entering or exiting the degreaser;

(E) A device determined to be equally effective by the Control Officer.

(4) Open top vapor degreasers with an open area less than 10.75 Ft.$^2$ (1M$^2$) shall be exempt from the provisions of this rule.

(c) Conveyorized Degreasers

(1) Entrances and exits shall be designed such that clearance between the items to be cleaned and the degreaser is either less than 4 inches (10 cm) or less than ten percent 10% of the width of the opening.

(2) The following safety switches:

(A) A condenser flow switch and thermostat which shuts off the sum heat is the condenser coolant is not circulating or the coolant temperature exceeds 85°F (29°C).

(B) A spray safety switch which shuts off the pump spray if the vapor level drops or rises in excess of 4 inches (10 cm).

(3) At least one of the following control devices:

(A) A freeboard height such that the freeboard ration is at least 0.75;

(B) A refrigerated freeboard chiller;

(C) A carbon adsorption system providing the ventilation is at least fifty (50) standard cubic feet per minute per square foot of air/vapor interface area

~~(15m$^3$/min. per m$^2$) and a control efficiency of at least ninety percent (90%) of the solvent vapors entering the carbon absorber.~~

~~(D) A device determined to be equally effective by the Control Officer.~~

~~3. Conveyorized degreasers with an air/vapor interface less than 21.5 square feet (2m2) shall be exempt from the provisions of this rule.~~

~~4. Definitions~~

~~For the purposes of this rule, the following definitions shall apply:~~

~~(a) Cold cleaner means any batch loaded, nonboiling organic solvent degreaser.~~

~~(b) Open-top vapor degreaser means any batch loaded boiling organic solvent degreaser.~~

~~(c) Conveyorized degreaser means any continuously or semicontinuously loaded, conveyorized organic solvent degreaser.~~

~~(d) Freeboard height means:~~

~~(1) In cold cleaning tanks, the distance from the solvent level or solvent drain to the top of the tank:~~

~~(2) In vapor degreasers, the distance from the top of the vapor zone to the top of the tank.~~

~~(e) Freeboard ration means the freeboard height divided by the width of the degreaser where the width is the smaller of the two planer dimensions.~~

~~D. Dry Cleaning~~

~~1. No person shall operate any dry cleaning equipment using chlorinated synthetic solvents without minimizing organic solvent emissions by accepted modern practices including, but not limited to, the use of an adequately sized and properly maintained activated carbon adsorber, or an adequately sized and properly operated vapor condensing system utilizing a coolant inlet temperature of 72° (22°C) or less, or other equally effective control device.~~

~~2. No person shall operate any dry cleaning establishment using petroleum solvents other than Stoddard, 140 (safety solution) or other non-photochemical reactive solvents without reducing solvent emissions by at least ninety percent (90%).~~

~~E. Spray Paint and Other Surface Coating Operations~~

~~1. No person shall conduct any spray paint operation except architectural coating without utilizing an enclosed area designed to contain not less than ninety-six percent (96%) by weight of the overspray. For the purpose of this rule and encloses area means a three (3) sided structure with walls a minimum of eight (8) feet high.~~

2. No person shall employ, apply, evaporate or dry any architectural coating for industrial or commercial purposes, material containing photochemically reactive solvent as defined in paragraph J of this rule.

3. For the purposes of this rule, architectural coating is defined as a coating used commercially or industrially for residential, commercial or industrial buildings and their appurtenances, structural steel and other fabrications such as but not limited to, storage tanks, bridges, beams and girders.

4. Other Coating Operations

(a) No person shall apply any coating by spraying, dipping, flow coating, electrodeposition or by any other means on any coating line or operation of the type designated below which emits or may emit any volatile organic compound(s) in excess of the following limits:

| AFFECTED FACILITY | Pounds Per Gallon | EMISSION LIMIT EXCLUDING WATER (Kilograms Per Liter) |
|---|---|---|
| Can Coating Line | | |
| Exterior and interior Basecoat and overvarnish | 2.8 | (0.34) |
| Two piece can exterior Basecoat and overvarnish | 2.8 | (0.34) |
| Two and three piece can Interior bodycoat | 4.2 | (0.51) |
| Two piece can exterior End coat | 4.2 | (0.51) |
| Endsealing compound | 3.7 | (0.44) |
| Coil Coating Line | | |
| Primecoat | 2.6 | (0.31) |
| Topcoat | 2.6 | (0.31) |
| Singlecoat | 2.6 | (0.31) |
| Metal Furniture Coating | 3.0 | (0.36) |
| Metal Parts and Products Coating Line | | |
| Large Appliances | 2.8 | (0.34) |
| Clear Coat | 4.3 | (0.52) |
| Powder Coat | 0.4 | (0.05) |

(b) The emission limits for operations designated in Regulation III, Rule 34 C.4(a) shall be achieved by the use of:

(1) Low solvent coatings such as waterborne coatings, high solids coatings and powder coatings, or

(2) Incineration, ultraviolet curable coatings or carbon adsorption providing emissions levels are as low as those achievable with low solvent coatings capable of meeting the prescribed limits, or

(3) Any other controls determined by the Control Officer to be equally effective.

(c) Testing required by the Control Officer to verify compliance with the prescribed limits shall be conducted by the following methods:

(1) ASTM D 2369-73 (Volatile content of paints)

(2) Federal Standard 141a, Method 4082 (Karl Fisher Titration Method)

(3) ASTM D 1475-60 (Paint Density)

(4) ASTM D 1644-59 Method A (Nonvolatile content of varnishes)

(d) Effective Dates

The owner or operator of any coating operation subject to this rule using low organic solvent coatings or any add-on controls, shall comply with the provisions of this rule no later than December 31, 1982 and shall comply with the following increments of progress:

(1) No later than April 1, 1981 submit to the Control Officer a final control plan which describes, as a minimum, the steps that will be taken to achieve compliance with the provisions of this rule and apply for an installation permit.

(2) No later than June 1, 1981 negotiate and sign all necessary contracts for the applicable control method or system.

(3) No later than December 31, 1981 initiate on-site construction of the control system or begin implementation of the control method.

(4) No later than October 31, 1082, complete on-site construction of the control system or implementation of the control method.

(5) No later than December 31, 1982, assure final compliance with all the provisions of this rule.

(e) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) "Can and Coil Coating" means any coating containing organic material applied to the surface(s) of formed cans or to the surface(s) of flat metal sheets or strips that have been formed into rolls or coils.

(2) "Coating Line" means any operation or process for applying, drying, baking and/or curing surface coatings, including all associated equipment.

(3) "Ultraviolet Curable Coating" means any coating containing organic material specially formulated to cure near instantaneously (less than one (1) second) in the presence of ultraviolet light.

(4) "Exterior Basecoat" means any coating containing organic material applied to the exterior of a can to provide protection for the metal or to provide background for any lithographic or printing operation.

(5) "Interior Basecoat" means any coating containing organic material applied to the interior of a can to provide a protective lining between the product and the can.

(6) "Overvarnish" means any coating containing organic material applied to a can to reduce the coefficient of friction, to provide gloss or to protect the finish against abrasion and/or corrosion.

(7) "Interior Body Coat" means any coating containing organic material applied to the interior of a can to provide a protective film between the product and the can.

(8) "Two Piece Can Exterior End Coat" means any coating contain organic material applied to the exterior end of a can to provide protection to the metal.

(9) "End Sealing Compound" means a compound containing organic material which is coated onto can ends and functions as a gasket when the end is attached to the can.

(10) "Prime Coating" means the first of two (2) or more films of coating applied in an operation.

(11) "Topcoat" means the final film or series of films of coating applied in a two (2) or more coat operation.

(12) "Single Coat" means only one (1) film of coating is applied to the metal substrate.

(13) "Metal Furniture" means any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece.

(14) "Large Appliances" means doors, cases, lids, panels, and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners and other similar products.

F. Except as provided in paragraph D, sub-section 2, no person shall discharge more than 15 pounds of organic materials into the atmosphere in any one (1) day from any machine, equipment, incinerator, device, or other article in which any organic solvent or any material containing organic solvent comes into contact with flame or is baked, heat-cured, or heat-polymerized, in the presence of oxygen.

G. No person shall discharge more than 40 pounds of organic material in to the atmosphere in any one (1) day from any machine, equipment, incinerator, device or other article used under conditions other than described in paragraph F of this rule for employing, applying,

evaporating or drying any photochemically reactive solvent as defined in paragraph J of this rule.

H. Emission of organic materials into the atmosphere required to be controlled by paragraphs F and G of this rule shall be reduced by:

1. Incineration, provided that ninety percent (90%) or more of the carbon in the organic material being incinerated is oxidized to carbon dioxide, or

2. Adsorption, or

3. Processing in a manner not less effective than in Subsection H.1. or H.2. above.

I. The provisions of this rule shall not apply to:

1. The manufacturer of organic solvents, or the transport or storage of organic solvents or materials containing organic solvents.

2. The use of equipment for which other requirements are specified by Rule 33.

3. The spraying or other employment of insecticides, pesticides or herbicides.

J. For the purposes of this rule, a photochemically reactive solvent is a solvent with an aggregate of more than twenty percent (20%) of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of solvent:

1. A combination of hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones having an olefinic or cycle-olofinic type of unsaturation: five percent (5%):

2. A combination of aromatic compounds with eight (8) or more carbon atoms to the molecule except ethyl benzene: eight percent (8%);

3. A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: twenty percent (20%)

Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it shall be considered as a member of the most reactive chemical group, that is, that group having the least allowable percent of the total volume of solvents.

K. No person shall, during any one (1) day, dispose of a total of more than one and one-half gallons of any photochemically reactive solvent as defined in paragraph J of this rule or of any material containing more than one and on-half gallons of any such photochemically reactive solvent by any means which will permit the evaporation of such solvent into the atmosphere.

L. Cutback Asphalt

1. Effective June 1, 1980, no person shall sell, use or apply cutback asphalt, or an emulsified asphalt containing petroleum products.

2. Exceptions

(a) Where the asphalt is used solely as a penetrating prime coats (penetrating prime coats do not include dust palliatives or tack coats),

(b) Where stockpile storage is necessary for longer than one (1) month,

(c) Where use or application occurs in the months of December, January, or February,

(d) When the user can demonstrate to the Control Officer that no emissions of organic compounds occur under normal use conditions,

(e) Use of emulsified asphalts and dust palliatives which contain no more than seven percent (7%) by volume of volatile organic compounds, as determined by ASTM D- 244,

(f) Effective June 1, 1982, use of emulsified asphalts and dust palliatives which contain no more than three percent (3%) by volume of volatile organic compounds as determined by ASTM D-244.

3. Definitions

For the purposes of this rule, the following definitions shall apply:

(a) "Asphalt" means the dark brown to black cementatious material (solid, semisolid, or liquid in consistency) the main constituents of which are naturally occurring bitumen's or bitumens resulting from petroleum refining.

(b) "Cutback Asphalt" means any paving asphalt liquefied with any petroleum distillate(s). If less than five percent (5%) by volume of these petroleum distillates contained in the asphalt distill at or below 540°F, the asphalt will not be considered a cutback. Compliance testing required to verify this provision shall be conducted by ASTM Method D402 or any other method approved by the Control Officer.

(c) "Emulsified Asphalt" means any asphalt produced by dispersing asphalt water by means of high speed agitation and an emulsifying agent.

(d) "Penetrating Prime Coat" means the low viscosity liquid asphalt applied to a surface to prepare it for paving with an asphalt material.

(e) "Tack Coat" means a light application of asphalt to an existing, relative non-absorbent surface to provide a thorough bond between the old and new surface.

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter XII, Air Pollution Control, Regulation III-Control of Air Contaminants, Rule 34 (Organic Solvents-Volatile Organic Compounds), adopted June 23, 1980)**

## SIP RULE 35: INCINERATORS

A. No person shall burn any combustible material in any incinerator within Maricopa County except in a multiple-chamber incinerator, equipped with auxiliary fuel, or in equipment equally effective. No burning shall be conducted between sunset and the following sunrise.

B. For the purposes of these Rules and Regulations, a "multiple-chamber incinerator" is any article, machine, equipment, contrivance, structure of part of a structure, used to dispose of combustible refuse by burning, consisting of three or more refractory lined combustion chambers in series, physically separated by refractory walls, interconnected by gas passage ports or ducts designed for maximum combustion of the material to be burned.

C. No incinerator shall be constructed, remodeled, installed or used until the following information, and such additional information and data as the Control Officer may require, have been filed with and approved by the Control Officer, and then only in compliance with the requirements of these Rules and Regulations.

1. Plans and specifications showing capacity, amount and type of waste to be incinerated, proposed fuel, fire chamber details, stack detail and location with reference to adjacent premises, auxiliary fuel controls;

2. Loading and unloading procedures and equipment;

3. Methods and equipment for preventing the discharge of contaminants into the ambient air;

4. Receptacles for storage and means for disposal of residue.

D. No person shall burn combustible wastes in any incinerator until it has passed a performance test based on the emission standards of Regulation F and G of this Rule, nor at any time in excess of these standards.

E. Approval of the use of an incinerator by the Control Officer is not intended to exempt the incinerator, its location or operation from the requirements of any public agency exercising proper jurisdiction.

F. No person shall emit into the outdoor atmosphere from any incinerator particulate matter to exceed 0.1 grains per cubic foot of flue gas at standard conditions adjusted to 12 per cent carbon dioxide in the exhaust gases and calculated as if no auxiliary fuel had been used.

G. Notwithstanding the provisions of Regulation III, Rule 30, no person shall emit into the atmosphere from any incinerator for an aggregate of more than thirty (30) seconds in any sixty (60) minutes, smoke the appearance, density, opacity or shade of which is as dark as No. 1 on the Ringelmann Scale.

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter XII, Air Pollution Control, Regulation III-Control of Air Contaminants, Rule 35 (Incinerators), adopted August 9, 1971, effective August 12, 1971)**

## SIP RULE 41: MONITORING (PARAGRAPH A AND B)

1-18-79

~~RULE 41. Monitoring~~

~~A. The owner, lessee or operator of a potential air contaminant source shall provide, install, maintain and operate such air contaminant monitoring devices as are reasonable and required to determine compliance in a manner acceptable to the Control Officer, and shall supply monitoring information as directed in writing by the Control Officer. Such devices shall be available for inspection by the Control Officer during all reasonable times. (Arizona Revised Statute 36-780)~~

~~B. Continuously Monitoring and Recording Emissions (added)~~

~~1.0 For the purpose of this rule, the following definitions shall apply:~~

~~mm. "Emission Standard" means a regulation (or portion thereof) setting forth an allowable rate of emissions, level of opacity, or prescribing equipment or fuel specifications that result in control of air pollution emissions.~~

~~nn. "Capacity Factor" means the ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.~~

~~oo. "Excess Emissions" means emissions of an air pollutant in excess of an emission standard.~~

~~pp. "Nitric Acid Plant" means any facility producing nitric acid 30 to 70 percent in strength by either the pressure or atmospheric pressure process.~~

~~qq. "Sulfuric Acid Plant" means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.~~

rr. "Fossil-fuel-fired steam generator" means a furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

1.1 Every owner or operator of an emission source in a category listed in sub-paragraphs below shall:

(1) Install, calibrate, operate, and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified in this rule for the applicable source category; and

(2) Complete the installation and performance tests of such equipment and begin monitoring and recording within eighteen (18) months of PLAN approval or promulgation.

The source categories and the respective monitoring requirements are listed below:

1.1.1 Fossil-fuel-fired steam generators, as specified in sub-paragraph 2.1 shall be monitored for opacity, nitrogen oxides emissions, sulfur dioxide emissions and oxygen or carbon dioxide.

1.1.2 Fluid Bed catalytic cracking unit catalyst regenerators, as specified in sub-paragraph 2.4 shall be monitored for opacity.

1.1.3 Sulfuric acid plants, as specified in sub-paragraph 2.3 shall be monitored for sulfur dioxide emissions.

1.1.4 Nitric acid plants, as specified in sub-paragraph 2.2 shall be monitored for nitrogen oxides emissions.

1.2 Exemptions

The provisions of this rule shall not apply to any source which is:

1.2.1 Subject to a new source performance standard promulgated in 40 CFR 60.

1.2.2 Not subject to an applicable emission standard of the approved SIP; or

1.2.3 Scheduled for retirement within five (5) years after inclusion of monitoring requirements for the source in these rules and regulations, provided that adequate evidence and guarantees are provided that clearly show that the source will cease operations prior to such date.

1.3 Extensions

THE CONTROL OFFICER MAY ALLOW a reasonable extension of time for INSTALLATION of monitors for facilities unable to meet the prescribed timeframe, provided the owner or operator of such facility demonstrates that good faith efforts have been made to obtain and install such devices within such prescribed timeframes.

1.4 Monitoring System Malfunction

THE CONTROL OFFICER MAY GRANT temporary exemption from the monitoring and reporting requirements of this rule during any period of monitoring system malfunction, provided that the source owner or operator shows to the satisfaction of the Control Officer that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

2.0 MINIMUM MONITORING REQUIREMENT - SOURCES LISTED IN SUB-PARAGRAPH 1.1 OF THIS RULE SHALL MEET THE FOLLOWING BASIC REQUIREMENTS:

2.1 FOSSIL FUEL-FIRED STEAM GENERATORS

EACH FOSSIL FUEL-FIRED STEAM GENERATOR, EXCEPT AS PROVIDED IN THE FOLLOWING SUB-PARAGRAPHS, WITH AN ANNUAL AVERAGE CAPACITY FACTOR OF GREATER THAN 30 PERCENT, AS REPORTED TO THE FEDERAL POWER COMMISSION FOR CALENDAR YEAR 1974, OR AS OTHERWISE DEMONSTRATED TO THE BUREAU BY THE OWNER OR OPERATOR, SHALL CONFORM WITH THE FOLLOWING MONITORING REQUIREMENTS WHEN SUCH FACILITY IS SUBJECT TO AN EMISSION STANDARD OF AN APPLICABLE PLAN FOR THE POLLUTANT IN QUESTION.

2.1.1 A CONTINUOUS MONITORING SYSTEM FOR THE MEASUREMENT OF OPACITY WHICH MEETS THE PERFORMANCE SPECIFICATIONS OF SUB PARAGRAPH 3.1.1 OF THIS RULE SHALL BE INSTALLED, CALIBRATED, MAINTAINED, AND OPERATED IN ACCORDANCE WITH THE PROCEDURES OF THIS RULE BY THE OWNER OR OPERATOR OF ANY SUCH STEAM GENERATOR OF GREATER THAN 250 MILLION BTU PER HOUR HEAT INPUT EXCEPT WHERE:

2.1.1.1 GASEOUS FUEL IS THE ONLY FUEL BURNED, OR

2.1.1.2 OIL OR A MIXTURE OF GAS AND OIL ARE THE ONLY FUELS BURNED AND THE SOURCE IS ABLE TO COMPLY WITH THE APPLICABLE PARTICULATE MATTER AND OPACITY REGULATIONS WITHOUT UTILIZATION OF PARTICULATE MATTER COLLECTION EQUIPMENT, AND WHERE THE SOURCE HAS NEVER BEEN FOUND, THROUGH ANY ADMINISTRATIVE OR JUDICIAL PROCEEDINGS TO BE IN VIOLATION OF ANY VISIBLE EMISSION STANDARD OF THE APPLICABLE PLAN.

~~2.1.2 A CONTINUOUS MONITORING SYSTEM FOR THE MEASUREMENT OF SULFUR DIOXIDE WHICH MEETS THE PERFORMANCE SPECIFICATIONS OF SUB-PARAGRAPH 3.1.3 OF THIS RULE SHALL BE INSTALLED, CALIBRATED, MAINTAINED, AND OPERATED ON ANY FOSSIL-FUEL FIRED STEAM GENERATOR OF GREATER THAN 250 MILLION BTU PER HOUR HEAT INPUT WHICH HAS INSTALLED SULFUR DIOXIDE POLLUTANT CONTROL EQUIPMENT.~~

~~2.1.3 A CONTINUOUS MONITORING SYSTEM FOR THE MEASUREMENT OF NITROGEN OXIDES WHICH MEETS THE PERFORMANCE SPECIFICATION OF SUB-PARAGRAPH 3.1.2 OF THIS RULE SHALL BE INSTALLED, CALIBRATED, MAINTAINED, AND OPERATED ON FOSSIL FUEL-FIRED STEAM GENERATORS OF GREATER THAN 1000 MILLION BTU PER HOUR HEAT INPUT WHEN SUCH FACILITY IS LOCATED IN AN AIR QUALITY CONTROL REGION WHERE THE CONTROL OFFICER HAS SPECIFICALLY~~ ADMINISTRATOR OF THE U.S. EPA HAS SPECIFICALLY ~~DETERMINED THAT A CONTROL STRATEGY FOR NITROGEN DIOXIDE IS NECESSARY TO ATTAIN THE NATIONAL STANDARDS, UNLESS THE SOURCE OWNER OR OPERATOR DEMONSTRATES DURING SOURCE COMPLIANCE TESTS AS REQUIRED BY THE BUREAU THAT SUCH A SOURCE EMITS NITROGEN OXIDES AT LEVELS 30 PERCENT OR MORE BELOW THE EMISSION STANDARD WITHIN THE APPLICABLE PLAN.~~

~~2.1.4 A CONTINUOUS MONITORING SYSTEM FOR THE MEASUREMENT OF THE PERCENT OXYGEN OR CARBON DIOXIDE WHICH MEETS THE PERFORMANCE SPECIFICATIONS OF SUB-PARAGRAPHS 3.1.4 OR 3.1.5 OF THIS RULE SHALL BE INSTALLED, CALIBRATED, OPERATED, AND MAINTAINED ON FOSSIL FUEL-FIRED STEAM GENERATORS WHERE MEASUREMENTS OF OXYGEN OR CARBON DIOXIDE IN THE FLUE GAS ARE REQUIRED TO CONVERT EITHER SULFUR~~

~~2.1.4 DIOXIDE OR NITROGEN OXIDES CONTINUOUS EMISSION MONITORING DATA, OR BOTH, TO UNITS OF THE EMISSION STANDARD WITHIN THE APPLICABLE PLAN.~~

~~2.2 NITRIC ACID PLANTS~~

~~EACH NITRIC ACID PLANT OF GREATER THAN 300 TONS PER DAY PRODUCTION CAPACITY, THE PRODUCTION CAPACITY BEING EXPRESSED AS 100 PERCENT ACID LOCATED IN AN AIR QUALITY CONTROL REGION ADMINISTRATOR OF THE U.S. EPA WHERE THE CONTROL OFFICER HAS SPECIFICALLY DETERMINED THAT A CONTROL STRATEGY FOR NITROGEN DIOXIDE IS NECESSARY TO ATTAIN THE NATIONAL STANDARD SHALL INSTALL, CALIBRATE, MAINTAIN, AND OPERATE A CONTINUOUS MONITORING SYSTEM FOR THE MEASUREMENT OF NITROGEN OXIDES WHICH MEETS THE PERFORMANCE SPECIFICATIONS OF SUB-PARAGRAPH 3.1.2 OF THIS RULE FOR EACH NITRIC ACID PRODUCING FACILITY WITHIN SUCH PLANT.~~

~~2.3 SULFURIC ACID PLANTS~~

~~EACH SULFURIC ACID PLANT OF GREATER THAN 300 TONS PER DAY PRODUCTION CAPACITY, THE PRODUCTION BEING EXPRESSED AS 100 PERCENT ACID, SHALL INSTALL, CALIBRATE, MAINTAIN AND OPERATE A CONTINUOUS MONITORING SYSTEM FOR THE MEASUREMENT OF SULFUR DIOXIDE WHICH MEETS THE PERFORMANCE SPECIFICATIONS OF 3.1.3 OF THIS RULE FOR EACH SULFURIC ACID PRODUCING FACILITY WITHIN SUCH PLANT.~~

~~2.4 FLUID BED CATALYTIC CRACKING UNIT CATALYST REGENERATORS AT PETROLEUM REFINERIES.~~

~~EACH CATALYST REGENERATOR FOR FLUID BED CATALYTIC CRACKING UNITS OF GREATER THAN 20,000 BARRELS PER DAY FRESH FEED CAPACITY~~

~~Shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of opacity which meets the performance specifications of 3.1.1 of this rule.~~

~~3.0 Minimum Specifications~~

~~Owners or operators of monitoring equipment installed TO COMPLY WITH THIS RULE, EXCEPT AS PROVIDED IN SUBPARAGRAPH 3.2, SHALL DEMONSTRATE COMPLIANCE WITH THE FOLLOWING PERFORMANCE SPECIFICATIONS.~~

~~3.1 Performance Specifications~~

~~THE PERFORMANCE SPECIFICATIONS SET FORTH in Appendix B of Part 60 of Chapter 1, Title 40 OF THE CODE OF FEDERAL REGULATIONS ARE incorporated herein by reference, and SHALL BE USED TO DETERMINE ACCEPTABILITY OF MONITORING EQUIPMENT INSTALLED PURSUANT TO THIS RULE EXCEPT THAT (1) WHERE REFERENCE IS MADE TO THE "ADMINISTRATOR" IN APPENDIX B OF 40 CFR 60, THE TERM "CONTROL OFFICER OF THE MARICOPA COUNTY BUREAU OF AIR POLLUTION CONTROL" SHOULD BE INSERTED FOR THE PURPOSE OF THIS RULE, AND (2) WHERE REFERENCE IS MADE TO THE "REFERENCE METHOD" IN APPENDIX B OF 40 CFR 60, THE CONTROL OFFICER MAY ALLOW THE USE OF EITHER THE STATE OR COUNTY APPROVED REFERENCE METHOD OR THE FEDERALLY APPROVED REFERENCE METHOD PUBLISHED IN 40 CFR 60. THE PERFORMANCE SPECIFICATIONS TO BE USED WITH EACH TYPE OF MONITORING SYSTEM ARE LISTED BELOW.~~

~~3.1.1 Continuous monitoring systems for measuring opacity shall comply with Performance Specification 1.~~

~~3.1.2 Continuous monitoring systems for measuring nitrogen oxides shall comply with Performance Specification 2.~~

~~3.1.3 Continuous monitoring systems for measuring sulfur dioxide shall comply with Performance Specification 2.~~

~~3.1.4 Continuous monitoring systems for measuring oxygen shall comply with Performance Specification 3.~~

~~3.1.5 Continuous monitoring systems for measuring carbon dioxide shall comply with Performance Specification 3.~~

~~3.2 Exemptions~~

~~THE CONTROL OFFICER MAY EXEMPT any source which has purchased an emission monitoring system(s) prior to September 11,1974, from meeting such test procedures prescribed in subparagraph 3.1 of this rule for a period not to exceed five (5) years from plan approval or promulgation.~~

~~3.3 Calibration Gases~~

~~FOR NITROGEN OXIDES MONITORING SYSTEMS INSTALLED ON FOSSIL FUEL-FIRED STEAM GENERATORS, THE POLLUTANT GAS USED TO PREPARE CALIBRATION GAS MIXTURES (SECTION 2.1, PERFORMANCE SPECIFICATION 2, APPENDIX B, PART 60,CHAPTER 1, TITLE 40, CFR) SHALL BE NITRIC OXIDE (NO). FOR NITROGEN OXIDES MONITORING SYSTEMS, INSTALLED ON NITRIC ACID PLANTS, THE POLLUTANT GAS USED TO PREPARE CALIBRATION GAS MIXTURES (SECTION 2.1, PERFORMANCE SPECIFICATION 2, APPENDIX B, PART 60, CHAPTER 1, TITLE 40,CFR) SHALL BE NITROGEN DIOXIDE($NO_2$). THESE GASES SHALL ALSO BE USED FOR DAILY CHECKS UNDER PARAGRAPH 3.7 OF THIS RULE AS APPLICABLE. FOR SULFUR DIOXIDE MONITORING SYSTEMS INSTALLED ON FOSSIL FUEL-FIRED STEAM GENERATORS OR SULFURIC ACID PLANTS, THE POLLUTANT GAS USED TO PREPARE CALIBRATION GAS MIXTURES(SECTION 2.1, PERFORMANCE SPECIFICATION 2, APPENDIX B, PART 60, CHAPTER 1, TITLE 40,CFR) SHALL BE SULFUR DIOXIDE ($SO_2$).~~

3.3 (continued)

SPAN AND ZERO GASES SHOULD BE TRACEABLE TO NATIONAL BUREAU OF STANDARDS REFERENCE GASES WHENEVER THESE REFERENCE GASES ARE AVAILABLE. EVERY SIX MONTHS FROM DATE OF MANUFACTURE, SPAN AND ZERO GASES SHALL BE REANALYZED BY CONDUCTING TRIPLICATE ANALYSES USING THE REFERENCE METHODS IN APPENDIX A, PART 60, CHAPTER 1, TITLE 40 CFR AS FOLLOWS: FOR SULFUR DIOXIDE, USE REFERENCE METHOD 6; FOR NITROGEN OXIDES, USE REFERENCE METHOD 7; AND FOR CARBON DIOXIDE OR OXYGEN, USE REFERENCE METHOD 3. THE GASES MAY BE ANALYZED AT LESS FREQUENT INTERVALS IF LONGER SHELF LIVES ARE GUARANTEED BY THE MANUFACTURER.

3.4 CYCLING TIMES

CYCLING TIMES INCLUDE THE TOTAL TIME A MONITORING SYSTEM REQUIRES TO SAMPLE, ANALYZE AND RECORD AN EMISSION MEASUREMENT.

3.4.1 CONTINUOUS MONITORING SYSTEMS FOR MEASURING OPACITY SHALL COMPLETE A MINIMUM OF ONE CYCLE OF OPERATION (SAMPLING, ANALYZING, AND DATA RECORDING) FOR EACH SUCCESSIVE 10-SECOND PERIOD.

3.4.2 CONTINUOUS MONITORING SYSTEMS FOR MEASURING OXIDES OF NITROGEN, CARBON DIOXIDE, OXYGEN, OR SULFUR DIOXIDE SHALL COMPLETE A MINIMUM OF ONE CYCLE OF OPERATION (SAMPLING, ANALYZING, AND DATA RECORDING) FOR EACH SUCCESSIVE 15-MINUTE PERIOD.

3.5 MONITOR LOCATION

ALL CONTINUOUS MONITORING SYSTEMS OR MONITORING DEVICES SHALL BE INSTALLED SO THAT REPRESENTATIVE MEASUREMENTS OF EMISSIONS OR PROCESS PARAMETERS (I.E., OXYGEN, OR CARBON DIOXIDE) FROM THE AFFECTED FACILITY ARE OBTAINED.

3.5 (continued)

ADDITIONAL GUIDANCE FOR LOCATION OF CONTINUOUS MONITORING SYSTEMS TO OBTAIN REPRESENTATIVE SAMPLES ARE CONTAINED IN THE APPLICABLE PERFORMANCE SPECIFICATIONS OF APPENDIX B OF PART 60, CHAPTER 1, TITLE 40, CFR.

3.6 COMBINED EFFLUENTS

WHEN THE EFFLUENTS FROM TWO OR MORE AFFECTED FACILITIES OF SIMILAR DESIGN AND OPERATING CHARACTERISTICS ARE COMBINED BEFORE BEING RELEASED TO THE ATMOSPHERE, MONITORING SYSTEMS MAY BE INSTALLED ON THE COMBINED EFFLUENT. WHEN THE AFFECTED FACILITIES ARE NOT OF SIMILAR DESIGN AND OPERATING CHARACTERISTICS, OR WHEN THE EFFLUENT FROM ONE AFFECTED FACILITY IS RELEASED TO THE ATMOSPHERE THROUGH MORE THAN ONE POINT, PROCEDURES TO IMPLEMENT THE INTENT OF THESE REQUIREMENTS SHALL BE SUBMITTED TO THE CONTROL OFFICER FOR HIS APPROVAL, WHICH SHALL INCLUDE BUT NOT BE LIMITED TO THE INSTALLATION OF SEPARATE MONITORS.

3.7 ZERO AND DRIFT

OWNERS OR OPERATORS OF ALL CONTINUOUS MONITORING SYSTEMS INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS RULE SHALL RECORD THE ZERO AND SPAN DRIFT IN ACCORDANCE WITH THE METHOD PRESCRIBED BY THE MANUFACTURER OF SUCH INSTRUMENTS; TO SUBJECT THE INSTRUMENTS TO THE MANUFACTURER'S RECOMMENDED ZERO AND SPAN CHECK AT LEAST ONCE DAILY UNLESS THE MANUFACTURER HAS RECOMMENDED ADJUSTMENTS AT SHORTER INTERVALS, IN WHICH CASE SUCH RECOMMENDATIONS SHALL BE FOLLOWED; TO ADJUST THE ZERO AND SPAN WHENEVER THE 24-HOUR ZERO DRIFT OR 24-HOUR CALIBRATION DRIFT LIMITS OF THE APPLICABLE PERFORMANCE SPECIFICATIONS IN APPENDIX B OF PART 60, CHAPTER 1, TITLE 40, CFR ARE EXCEEDED; AND TO ADJUST CONTINUOUS MONITORING SYSTEMS REFERENCED BY

3.7 (cont'd)

PARAGRAPH 3.2 OF THIS RULE WHENEVER THE 24-HOUR ZERO DRIFT OR 24-HOUR CALIBRATION DRIFT EXCEED 10 PERCENT OF THE EMISSION STANDARD.

3.8 SPAN

INSTRUMENT SPAN SHOULD BE APPROXIMATELY 200 PERCENT OF THE EXPECTED INSTRUMENT DATA DISPLAY OUTPUT CORRESPONDING TO THE EMISSION STANDARD FOR THE SOURCE.

4.0 Minimum Data Requirements.

The following paragraphs set forth the minimum data reporting requirements as necessary with this rule.

4.1 The owners or operators of facilities required to install continuous monitoring systems shall submit a written report of excess emissions for each calendar quarter and the nature and cause of the excess emissions, if known. The averaging period used for data reporting must correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the pollutant source category in question. The required report shall, include as a minimum, the data stipulated in this rule.

4.2 For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of all one minute averages of opacity greater than ANY APPLICABLE opacity STANDARDS in these regulations for each hour of operation of the facility. Average values may be obtained by integration over the averaging period, or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. ANY TIME PERIOD EXEMPTED SHALL BE CONSIDERED BEFORE DETERMINING THE EXCESS AVERAGES OF OPACITY.

4.3 FOR GASEOUS MEASUREMENTS THE SUMMARY SHALL CONSIST OF EMISSION AVERAGES IN THE UNITS OF THE APPLICABLE STANDARD FOR EACH AVERAGING PERIOD DURING WHICH THE APPLICABLE STANDARD WAS EXCEEDED.

4.4 THE DATE AND TIME IDENTIFYING EACH PERIOD DURING WHICH THE CONTINUOUS MONITORING SYSTEM WAS INOPERATIVE, EXCEPT FOR ZERO AND SPAN CHECKS AND THE NATURE OF SYSTEN REPAIR OR ADJUSTMENT SHALL BE REPORTED. THE CONTROL OFFICER MAY REQUIRE PROOF OF CONTINUOUS MONITORING SYSTEM PERFORMANCE WHENEVER SYSTEM REPAIRS OR ADJUSTMENTS HAVE BEEN MADE.

4.5 WHEN NO EXCESS EMISSIONS HAVE OCCURRED AND THE CONTINUOUS MONITORING SYSTEM(S) HAVE NOT BEEN INOPERATIVE, REPAIRED, OR ADJUSTED, SUCH INFORMATION SHALL BE INCLUDED IN THE REPORT.

4.6 OWNERS OR OPERATORS OF AFFECTED FACILITIES SHALL MAINTAIN A FILE OF ALL INFORMATION REPORTED IN THE QUARTERLY SUMMARIES, AND ALL OTHER DATA COLLECTED EITHER BY THE CONTINUOUS MONITORING SYSTEM OR AS NECESSARY TO CONVERT MONITORING DATA TO THE UNITS OF THE APPLICABLE STANDARD FOR A MINIMUM OF TWO YEARS FROM THE DATE OF COLLECTION OF SUCH DATA OR SUBMISSION OF SUCH SUMMARIES.

5.0 DATA REDUCTION

OWNERS OR OPERATORS OF AFFECTED FACILITIES SHALL USE THE FOLLOWING PROCEDURES FOR CONVERTING MONITORING DATA TO UNITS OF THE STANDARD WHERE NECESSARY.

5.1 FOR FOSSIL FUEL-FIRED STEAM GENERATORS THE FOLLOWING PROCEDURES SHALL BE USED TO CONVERT GASEOUS EMISSION MONITORING DATA IN PARTS PER MILLION TO g/MILLION CAL (LB/MILLION BTU) WHERE NECESSARY.

5.1.1 WHEN THE OWNER OR OPERATOR OF A FOSSIL FUEL-FIRED STEAM GENERATOR ELECTS UNDER SUB-PARAGRAPH 2.1.4 OF THIS RULE TO MEASURE OXYGEN IN THE FLUE GASES, THE MEASUREMENTS OF THE POLLUTANT CONCENTRATION

5.1.1 AND OXYGEN CONCENTRATION SHALL EACH BE ON A DRY BASIS AND THE FOLLOWING CONVERSION PROCEDURE USED:

$$E = CF \left( \frac{20.9}{20.9 - \%O_2} \right)$$

5.1.2 WHEN THE OWNER OR OPERATOR ELECTS UNDER SUB-PARAGRAPH 2.1.4 OF THIS RULE TO MEASURE CARBON DIOXIDE IN THE FLUE GASES, THE MEASUREMENT OF THE POLLUTANT CONCENTRATION AND THE CARBON DIOXIDE CONCENTRATION SHALL EACH BE ON A CONSISTENT BASIS (WET OR DRY) AND THE FOLLOWING CONVERSION PROCEDURE USED:

$$E = CF_c \left( \frac{100}{\%CO_2} \right)$$

5.1.3 THE VALUES USED IN THE EQUATIONS UNDER PARAGRAPH 5.1 ARE DERIVED AS FOLLOWS:

E = POLLUTANT EMISSION, g/MILLION, CAL (LB/MILLION BTU);

C = POLLUTANT CONCENTRATION, g/DSCM (LB/DSCF), DETERMINED BY MULTIPLYING THE AVERAGE CONCENTRATION (PPM) FOR EACH HOURLY PERIOD BY $4.16 \times 10^{-5}$ M g/DSCM PER PPM ($2.64 \times 10^{-9}$ M LB/DSCF PER PPM) WHERE M = POLLUTANT MOLECULAR WEIGHT, g/g-MOLE (LB/LB-MOLE), M = 64 FOR SULFUR DIOXIDE AND 46 FOR OXIDES OF NITROGEN;

$\%O_2, \%CO_2$ = OXYGEN OR CARBON DIOXIDE VOLUME (EXPRESSED AS PERCENT) DETERMINED WITH EQUIPMENT SPECIFIED UNDER PARAGRAPH 4.1.4 OF THIS RULE, SUBPARAGRAPHS 3.1.4 and 3.1.5;

$F, F_c$ = A FACTOR REPRESENTING A RATIO OF THE VOLUME OF DRY FLUE GASES GENERATED TO THE CALORIFIC VALUE OF THE FUEL COMBUSTED (F), AND A FACTOR REPRESENTING A

5.1.3 (contd) RATIO OF THE VOLUME OF CARBON DIOXIDE GENERATED TO THE CALORIFIC VALUE OF THE FUEL COMBUSTED ($F_c$) RESPECTIVELY. VALUES OF F AND $F_c$ ARE GIVEN IN § 60.45 (f) OF PART 60, OF 40 CFR 6 AS APPLICABLE.

5.2 FOR SULFURIC ACID PLANTS THE OWNER OR OPERATOR SHALL:

5.2.1 ESTABLISH A CONVERSION FACTOR THREE TIMES DAILY ACCORDING TO THE PROCEDURES OF § 60.84 (b) OF CHAPTER 1, TITLE 40, CODE OF FEDERAL REGULATIONS:

5.2.2 MULTIPLY THE CONVERSION FACTOR BY THE AVERAGE SULFUR DIOXIDE CONCENTRATION IN THE FLUE GASES TO OBTAIN AVERAGE SULFUR DIOXIDE EMISSION IN Kg/METRIC TON (LB/SHORT TON); AND

5.2.3 REPORT THE AVERAGE SULFUR DIOXIDE EMISSION FOR EACH AVERAGING PERIOD IN EXCESS OF THE APPLICABLE EMISSION STANDARD IN THE QUARTERLY SUMMARY.

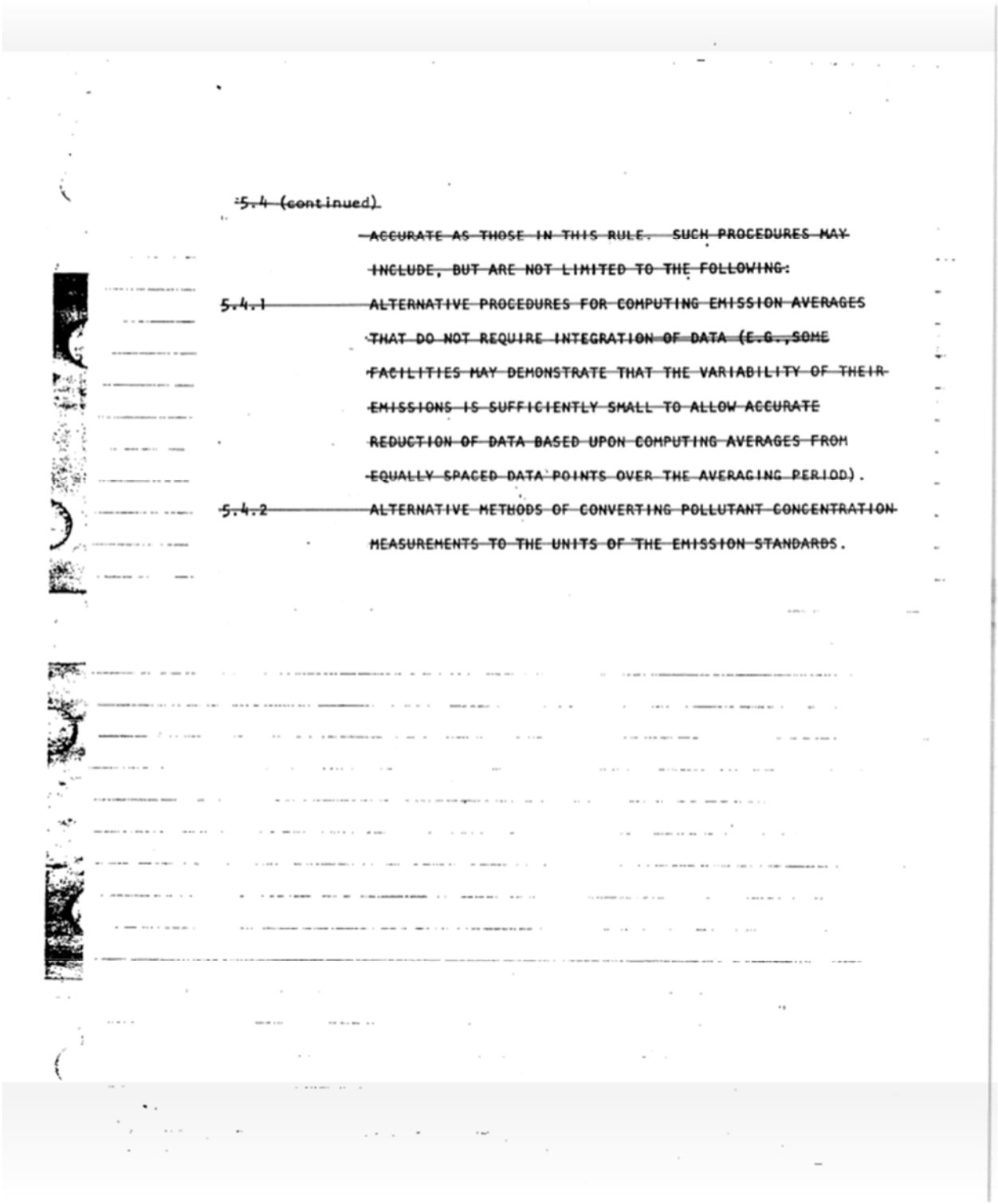
5.3 FOR NITRIC ACID PLANTS THE OWNER OR OPERATOR SHALL:

5.3.1 ESTABLISH A CONVERSION FACTOR ACCORDING TO THE PROCEDURES OF § 60.73 (b) OF CHAPTER 1, TITLE 40, CODE OF FEDERAL REGULATIONS;

5.3.2 MULTIPLY THE CONVERSION FACTOR BY THE AVERAGE NITROGEN OXIDES CONCENTRATION IN THE FLUE GASES TO OBTAIN THE NITROGEN OXIDES EMISSIONS IN THE UNITS OF THE APPLICABLE STANDARD;

5.3.3 REPORT THE AVERAGE NITROGEN OXIDES EMISSION FOR EACH AVERAGING PERIOD IN EXCESS OF APPLICABLE EMISSION STANDARD IN THE QUARTERLY SUMMARY.

5.4 THE CONTROL OFFICER MAY ALLOW DATA REPORTING OR REDUCTION PROCEDURES VARYING FROM THOSE SET FORTH IN THIS RULE IF THE OWNER OR OPERATOR OF A SOURCE SHOWS TO THE SATISFACTION OF THE CONTROL OFFICER THAT HIS PROCEDURES ARE AT LEAST AS



5.4 (continued).

ACCURATE AS THOSE IN THIS RULE. SUCH PROCEDURES MAY INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

5.4.1 ALTERNATIVE PROCEDURES FOR COMPUTING EMISSION AVERAGES THAT DO NOT REQUIRE INTEGRATION OF DATA (E.G., SOME FACILITIES MAY DEMONSTRATE THAT THE VARIABILITY OF THEIR EMISSIONS IS SUFFICIENTLY SMALL TO ALLOW ACCURATE REDUCTION OF DATA BASED UPON COMPUTING AVERAGES FROM EQUALLY SPACED DATA POINTS OVER THE AVERAGING PERIOD).

5.4.2 ALTERNATIVE METHODS OF CONVERTING POLLUTANT CONCENTRATION MEASUREMENTS TO THE UNITS OF THE EMISSION STANDARDS.

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter XII, Air Pollution Control, Regulation IV-Production of Records; Monitoring, Rule 41 (Testing and Sampling Facilities), adopted May 12, 1980)**

## SIP RULE 42: TESTING AND SAMPLING

~~A. It shall be the responsibility of the owner or operator of an air contaminant emissions source to, and he shall, provide at his expense necessary and conveniently located utilities, reasonable and necessary test openings in the system or stack or stack extension if necessary for uniformity of gas flow, and safe access hereto to permit technically valid samples and measurements of the emissions to be taken at reasonable times and under reasonable conditions.~~

~~B. In the event the existing facilities for sampling or testing and the access thereto are inadequate to permit the taking of technically valid samples and measurements, the Control Officer shall notify the source owner or operator, in writing, of the required size, number, and location of the sampling hoes; required size and location of the sampling platform; required access to the sampling platform; and the required utilities for operating the sampling and testing equipment and the required schedule for providing these facilities as required in accordance with the schedule outlined by the Control Officer.~~

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter XII, Air Pollution Control, Regulation IV-Production of Records, Monitoring; Rule 42 (Testing and Sampling), adopted August 12, 1971, effective August 12, 1971)**

## SIP RULE 74: PUBLIC NOTIFICATION (PARAGRAPH C)

~~A. Any violations of the National Ambient Air Quality Standards, (NAAQS) which have occurred during the previous calendar year shall be communicated to the public in an annual report. This report shall be issued each year no later than August 1 and shall include:~~

~~1. The date, time and duration of any pollutant level exceeded. The levels shall be expressed through the use of the Pollution Standard Index (PSI).~~

~~2. An explanation to the public of any health hazards associated with each pollutant level exceeded. This shall be in the form of a narrative supported with statistical documentation.~~

~~3. Suggestions to the public on ways that the violation might be avoided in the future and what steps can be taken to alleviate the severity of the violations while they are occurring.~~

~~4. A description of ways in which the public can participate in the regulatory process including:~~

~~a. A summary of proposed regulatory changes for the coming year.~~

~~b. A tentative schedule of public meetings which will be held to consider changes and new regulations.~~

~~B. The annual report will be made available to the public at the offices of Maricopa County Bureau of Air Pollution Control. As resources allow, copies will be made available.~~

~~C. The public shall be informed on a daily basis of average daily concentrations of three pollutants (TSP, CO and OSRS3SRS). This information shall be disseminated through the use of newspapers, radio and television. The levels of each pollutant shall be expressed through the use of the Pollution Standard Index (PSI) and a written copy of such information shall be made available in a place of public access at the bureau offices.~~

~~D. The yearly report shall include a trend analysis of air quality in the Phoenix area. This analysis will outline what has taken place in the previous year and projections for future years with cause/effect analysis.~~

**(Maricopa County Department of Health Services, Division of Public Health, Bureau of Air Pollution Control, Rules and Regulations, Regulation VII-Ambient Air Quality Standards: Antidegradation: Emergency Episode; Attainment Area Classification, Rule 74 (Public Notification), May 12, 1980)**

## SIP RULE 81: OPERATION

~~A. Nothing in these Rules and Regulations shall in any manner be construed as authorizing or permitting the creation or maintenance of a nuisance.~~

**(Maricopa County Health Department, Bureau of Air Pollution Control, Rules and Regulations, Chapter V, Air Pollution Control, Regulation VIII-Validity and Operation, adopted August 9, 1971, effective August 12, 1971)**

# SIP RULE 100: GENERAL PROVISIONS AND DEFINITIONS, MONITORING AND RECORDS

~~Revised 07/13/88~~
~~Revised 10/01/90~~
~~Revised 06/22/92~~
~~Revised 11/16/92~~
~~Repealed and Adopted 11/15/93~~
~~Revised 02/15/95~~
~~Revised 04/03/96~~
~~Revised 06/19/96~~
~~Revised 03/04/98~~
~~Revised 05/20/98~~
~~Revised 07/26/00~~
~~Revised 03/07/01~~
~~Revised 08/22/01~~
~~Revised 11/06/02~~
~~Revised 03/15/06~~

~~MARICOPA COUNTY~~
~~AIR POLLUTION CONTROL REGULATIONS~~
~~REGULATION I - GENERAL PROVISIONS~~
~~RULE 100~~

~~GENERAL PROVISIONS AND DEFINITIONS~~

~~SECTION 500 - MONITORING AND RECORDS~~

~~501~~ ~~REPORTING REQUIREMENTS: The owner and/or operator of any air pollution source shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced, and any other records relating to the emission of air contaminants which may be requested by the Control Officer.~~

~~502~~ ~~DATA REPORTING: When requested by the Control Officer, a person shall furnish to the Department information to locate and classify air contaminant sources according to type, level, duration, frequency, and other characteristics of emissions and such other information as may be necessary. This information shall be sufficient to evaluate the effect on air quality and compliance with these rules. The owner and/or operator of a source requested to submit information under Section 501 of this rule may subsequently be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.~~

~~503 EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT: Upon request of the Control Officer and as directed by the Control Officer, the owner and/or operator of any source which emits or may emit oxides of nitrogen (NOx) or volatile organic compounds (VOC) shall provide the Control Officer with an emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions of NOx and VOC from that source. At a minimum, the emission statement shall contain all information required by the Consolidated Emissions Reporting Rule in 40 CFR 51, Subpart A, Appendix A, Table 2A, which is incorporated by reference in Appendix G. The statement shall contain emissions for the time period specified by the Control Officer. The statement shall also contain a certification by a responsible official of the company that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. Statements shall be submitted annually to the Department. The Control Officer may waive this requirement for the owner and/or operator of any source which emits less than 25 tons per year of oxides of nitrogen or volatile organic compounds with an approved emission inventory for sources based on AP-42 or other methodologies approved by the Administrator of EPA.~~

~~504 RETENTION OF RECORDS: Information and records required by applicable requirements and copies of summarizing reports recorded by the owner and/or operator and submitted to the Control Officer shall be retained by the owner and/or operator for 5 years after the date on which the information is recorded or the report is submitted. Non-Title V sources may retain such information, records, and reports for less than 5 years, if otherwise allowed by these rules.~~

~~505 ANNUAL EMISSIONS INVENTORY REPORT:~~

~~505.1 Upon request of the Control Officer and as directed by the Control Officer, the owner and/or operator of a business shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30, or 90 days after the Control Officer makes the inventory form(s) available, whichever occurs later. These requirements apply whether or not a permit has been issued and whether or not a permit application has been filed.~~

~~505.2 The annual emissions inventory report shall be in the format provided by the Control Officer.~~

~~505.3 The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under ARS §49-476.01, ARS §49-480.03, and ARS §49-480.04.~~

**(Maricopa County Air Pollution Control Regulations, Regulation I-General Provisions, Rule 100 (General Provisions and Definitions), as revised and adopted March 15, 2006)**

## SIP RULE 100: GENERAL PROVISIONS AND DEFINITIONS, MONITORING AND RECORDS

~~Revised 07/13/88~~
~~Revised 10/01/90~~
~~Revised 06/22/92~~
~~Revised 11/16/92~~
~~Repealed and Adopted 11/15/93~~
~~Revised 02/15/95~~
~~Revised 04/03/96~~
~~Revised 06/19/96~~
~~Revised 03/04/98~~
~~Revised 05/20/98~~
~~Revised 07/26/00~~
~~Revised 03/07/01~~
~~Revised 08/22/01~~
~~Revised 11/06/02~~
~~Revised 03/15/06~~
~~Revised 06/06/07~~
~~Revised 09/25/13~~

~~MARICOPA COUNTY~~
~~AIR POLLUTION CONTROL REGULATIONS REGULATION I – GENERAL PROVISIONS~~
~~RULE 100~~

~~GENERAL PROVISIONS AND DEFINITIONS~~

~~SECTION 100 – GENERAL~~

~~108 HEARING BOARD: The Board of Supervisors shall appoint a 5-member hearing board knowledgeable in the field of air pollution. At least three members shall not have a substantial interest, as defined in A.R.S. §38-502(11), in any person required to obtain an air pollution permit or subject to enforcement orders issued under these rules. Each member shall serve a term of three years.~~

**(Maricopa County Air Pollution Control Regulations, Regulation I-General Provisions, Rule 100 (General Provisions and Definitions), as revised and adopted August 25, 2013)**

## SIP RULE 220: PERMITS AND FEES

1-4-90

REGULATION II - PERMITS AND FEES

RULE 220
PERMITS TO OPERATE

INDEX

Revised 07/13/88

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS

REGULATION II - PERMITS AND FEES

RULE 220
PERMITS TO OPERATE

SECTION 100 - GENERAL

101 PURPOSE: To provide an orderly procedure to control air contaminants through the issuance of Permits to Operate.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 CATEGORICAL SOURCE - The following classes of sources: coal cleaning plants (with thermal dryers); kraft pulp mills; portland cement plants; primary zinc smelters; iron and steel mills; primary aluminum ore reduction plants; primary copper smelters; municipal incinerators capable of charging more than 250 tons of refuse per day; hydrofluoric, sulfuric, or nitric acid plants; petroleum refineries; lime plants; phosphate rock processing plants; coke oven batteries; sulfur recovery plants; carbon black plants (furnace process); primary lead smelters; fuel conversion plants; sintering plants; secondary metal production plants; chemical process plants; fossil fuel boilers (or combination thereof) totaling more than 250 million BTU's per hour heat input; petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels; taconite preprocessing plants; glass fiber processing plants; charcoal production plants; fossil fuel-fired steam electric plants of more than 250 million BTU's per hour heat input.

202 MAJOR SOURCE (MAJOR STATIONARY SOURCE) - Any of the following sources of air pollution:

202.1 Any stationary source located in a nonattainment area which emits, or has a potential emission rate of 100 tons per year or more of any pollutant subject to regulation under the Act; or

202.2 Any stationary source located in an attainment or unclassifiable area which emits, or has a potential emission rate of 100 tons per year or more of any

pollutant subject to regulation under the Act if the source is classified as a categorical source, or 250 tons per year or more of any pollutant subject to regulation under the Act if the source is not classified as a categorical source; or

202.3 Any change to a minor source which would increase the emissions to the qualifying levels specified under Sections 202.1 and 202.2 of this rule.

202.4 A major stationary source that is major for volatile organic compounds shall be considered major for ozone.

203 REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) - The lowest emission limitation that a particular source is capable of achieving by the application of control technology that is reasonably available considering technological and and economic feasibility. Such technology may previously have been applied to a similar, but not necessarily identical, source category. RACT for a particular source is determined on a case-by-case basis, considering the technological feasibility and cost-effectiveness of the application of the control technology to the source category.

SECTION 300 - STANDARDS

301 PERMIT REQUIREMENTS: Except as provided in this rule or Rule 100 of these Regulations, no person shall operate any source without first obtaining a Permit to Operate from the Control Officer. When an Installation Permit is required, a Permit to Operate shall not be issued until such time as the Installation Permit has been obtained. In the event a person operating any source unintentionally commences construction, major modification, or major alteration, activities for which an Installation Permit is required without obtaining such Installation Permit, such person shall be required to present to the Control Officer all necessary information which is required to be submitted by an applicant for an Installation Permit and the source shall be made to conform to all applicable standards.

302 STANDARDS FOR GRANTING PERMITS: No Permit to Operate will be issued unless:

302.1 The applicant demonstrates that the source will be in compliance with all applicable provisions of these Regulations.

302.2 The owner or operator of an existing source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, demonstrates compliance with Reasonably Available Control Technology.

SECTION 400 -- ADMINISTRATIVE REQUIREMENTS

401 APPLICATION PROCEDURES FOR PERMITS TO OPERATE: An application for a Permit to Operate shall be filed in the manner and form prescribed by the Control Officer and shall include such information as required by these Regulations.

401.1 A separate application is required for each source or facility as required in these Regulations.

401.2 Each application shall be signed by the applicant.

401.3 Each application for an initial Permit to Operate shall be accompanied by plans, descriptions, specifications and drawings showing the design of new source, major modification or major alteration. The application shall also include stack data, and the nature and amount of emissions. An application for a renewal of a Permit to Operate shall be accompanied by plans, descriptions, specifications and drawings showing any changes in the source's configuration from that which existed on the date of issuance of the most recent Permit to Operate.

401.4 Each application shall include information concerning compliance with any conditions on any prior permit.

401.5 The Control Officer may waive the submission by the applicant of any of the data or information required by this rule if such data are determined to be inappropriate or unnecessary.

402 TESTING REQUIRED: Within 20 days after the receipt of an application, the Control Officer shall advise the applicant of any additional information or testing required. No application shall be considered complete and properly filed until the applicant has submitted such information or test results.

403 ADDITIONAL INFORMATION OR MODELING REQUIRED: The Control Officer may with reasonable cause require the applicant to provide additional information or to provide and maintain such ambient air monitoring facilities or ambient air impact modeling as necessary to secure information that ... disclose

the effect that emissions from the major source will have on maintenance and attainment of applicable Arizona or national ambient air quality standards. An item of equipment not covered by a Permit to Operate may be operated for purposes of testing, including accomplishment of new source perfomance testing under Rule 360 of these Regulations, only if specific written permission has been obtained from the Control Officer designating the dates of such operation for testing.

**404 PROCEDURES FOR SUBMISSION OF CONTROL PLANS DEMONSTRATING RACT:** If the Control Officer determines that an existing major source is subject to Section 302.2 of this rule, the applicant shall be required to submit a control plan demonstrating RACT and a compliance schedule for approval as follows:

**404.1 Applicant Notification:** Following a determination that an existing major source is subject to Section 302.2 of this rule, the Control Officer shall notify the applicant in writing of his determination.

**404.2 Control Plans Required:** The applicant shall develop and submit to the Control Officer for his approval an emission control plan demonstrating RACT and a compliance schedule within six months from the date of written notification.

**404.3 Compliance Schedules Required:** Compliance schedules shall include such increments of progress as are specified by the Control Officer resulting in final compliance within:

a. 12 months following approval of a control plan utilizing materials substitution or process modifications not requiring capital expenditures.

b. 24 months following approval of a control plan utilizing process modifications requiring capital expenditures.

**404.4 Action on Control Plans:** The Control officer shall take final action on the control plan within 30 days of the proper filing of the control plan. The Control Officer shall notify the applicant in writing of his approval or denial.

**404.5 Progress Reports Required:** The Control Officer upon approval of a control plan shall require the applicant to submit progress reports within five (5) of the date indicated for each increment of progress specified in the compliance schedule.

405 ACTION ON APPLICATIONS: The Control Officer shall take final action on the application within 30 days of the proper filing of the completed application. The Control Officer shall notify the applicant in writing of his approval, conditional approval or denial. Such notification shall be made available for public inspection at a location within the county designated by the Control Officer.

406 PERMIT PROVISIONS: Each Permit to Operate issued under these Regulations shall include the following provisions:

406.1 A description of the facility and equipment covered and its location, or for a mobile source, the area in which it may operate.

406.2 The name and address of the owner or operator of the source.

406.3 The date the permit is issued and the date it will expire.

407 INSPECTION OF EQUIPMENT: An annual inspection shall be conducted by the Control Officer to determine that the permitted equipment has not been altered, relocated or changed ownership, and that the permitted equipment remains in compliance with these Regulations. Additional inspections may be conducted at any time to verify compliance.

408 PERMIT RENEWAL: Permits to Operate issued pursuant to this rule shall be issued for a period of one year and will be renewed annually, following a compliance inspection, approval of the application and payment of fees.

409 ANNUAL RENEWAL DATE: When a Permit to Operate is granted for equipment erected, installed or replaced on the site location of an existing Permit to Operate of the same permittee, the annual renewal date of the new permit shall be the anniversary date of the existing permit and the new permit fee shall be pro-rated from the date of issuance to that anniversary date.

410 FEES REQUIRED: Persons subject to this rule shall pay the fees required as set forth in Rule 280 of these Regulations.

220.7

**(Maricopa County Air Pollution Control Regulations, Regulation II-Permits and Fees, Rule 220 (Permits to Operate), as revised and adopted July 13, 1988)**

## SIP RULE 322: POWER PLANT OPERATIONS

REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 322
POWER PLANT OPERATIONS
INDEX

SECTION 300 – STANDARDS

301 LIMITATIONS – PARTICULATE MATTER
302 LIMITATIONS – OPACITY
303 LIMITATIONS - SULFUR IN FUEL
304 LIMITATIONS –NITROGEN OXIDES
305 LIMITATIONS –CARBON MONOXIDE
306 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT
307 EMERGENCY FUEL USE NOTIFICATION

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING
502 RECORDS RETENTION
503 COMPLIANCE DETERMINATION
504 TEST METHODS INCORPORATED BY REFERENCE

Adopted 7/02/03
Revised 10/17/07

MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 322
POWER PLANT OPERATIONS

SECTION 100 - GENERAL

101 PURPOSE: To limit the discharge of nitrogen oxides, sulfur oxides, particulate matter and carbon monoxide emissions into the atmosphere from stationary fossil-fuel-fired equipment at existing power plants and existing cogeneration plants and to limit particulate matter emissions from cooling towers associated with this equipment.

102 APPLICABILITY: This rule applies to any of the following types of equipment that burn fossil fuel for which construction commenced prior to May 10, 1996:

102.1 Each electric utility steam generating unit or cogeneration steam generating unit used to generate electric power that has a heat input of equal to or greater than 100 million (MM) Btu/hour (29 megawatts (MW)).

102.2 Each electric utility stationary gas turbine with a heat input at peak load equal to or greater than 10 MMBtu/hour (2.9 MW) based upon the lower heating value of the fuel.

102.3 Each cooling tower associated with the type of equipment listed in subsections 102.1 and 102.2.

103 EXEMPTIONS: This rule shall not apply to the following types of equipment:

103.1 Combustion equipment associated with nuclear power plant operations; or

103.2 Reciprocating internal combustion equipment.

104 PARTIAL EXEMPTIONS:

104.1 Stationary gas turbines that meet any of the following criteria listed below are exempt from Sections 304 and 305 and subsections 301.1, 301.2, 306.4, and 501.4 of this rule:

a. Used for fire fighting; or

b. Used for flood control; or

c. Used in the military at military training facilities or military gas turbines for use in other than a garrison; or

d. Engaged by manufacturers in research and development of equipment for either gas turbine emission control techniques or gas turbine efficiency improvements.

104.2 All equipment listed in Section 102 fired with an emergency fuel that is normally fired with natural gas is exempt from Sections 304 and 305 and subsections 301.1, 301.2, and 306.4, 501.4 of this rule.

104.3 All equipment listed in Section 102 shall be exempt from Sections 304 and 305 and subsections 301.1, 301.2, and 306.4, of this rule for 36 cumulative hrs. of firing emergency fuel per year, per unit for testing, reliability, training, and maintenance purposes.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply: See Rule 100 (General Provisions and Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

201 COGENERATION STEAM GENERATING UNIT – A steam or hot water generating unit that simultaneously produces both electrical (or mechanical) and thermal energy (such as heat or steam) from the same primary energy source and supplies more than one-third of its potential electric output to any utility power distribution system for sale.

202 COMBINED CYCLE GAS TURBINE – A type of stationary gas turbine wherein heat from the turbine exhaust is recovered by a steam generating unit to make steam for use in a steam-electric turbine.

203 CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) – The total equipment required to sample and analyze emissions or process parameters such as opacity, nitrogen oxide, and oxygen or carbon dioxide, and to provide a permanent data record.

204 COOLING TOWERS – Open water recirculating devices that use fans or natural draft to draw or force air through the device to cool water by evaporation and direct contact.

205 ~~CORRECTIVE ACTION PLAN (CAP) - A methodical procedure that is used to evaluate and correct a turbine operational problem and that includes, at a minimum, improved preventative maintenance procedures, improved ECS operating practices, possible operational changes, and progress reports.~~

206 ~~DISTILLATE OIL – A petroleum fraction of fuel oil produced by distillation that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-01, "Standard Specification for Fuel Oils."~~

207 ~~DRIFT – Water droplets, bubbles, and particulate matter that escape from cooling tower stacks.~~

208 ~~DRIFT ELIMINATOR – Device used to remove drift from cooling tower exhaust air, thus reducing water loss by relying on rapid changes in velocity and direction of air-droplet mixtures by impaction on eliminator passage surfaces. A drift eliminator is not categorized as an emission control system but is an inherent part of the cooling tower's design requirements.~~

209 ~~DRIFT RATE – Percentage (%) of circulating water flow rate that passes through a drift eliminator on a cooling tower.~~

210 ~~ELECTRIC UTILITY STATIONARY GAS TURBINE – Any stationary gas turbine that is constructed for the purpose of supplying more than 1/3 of its potential electric output capacity to any utility power distribution system for sale. Both simple and combined cycle gas turbines are types of electric utility stationary gas turbines.~~

211 ~~ELECTRIC UTILITY STEAM GENERATING UNIT – Any steam electric generating unit that uses fossil fuel and is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electric output to any utility power distribution system for sale.~~

212 ~~EMERGENCY FUEL - Fuel fired only during circumstances such as natural gas emergency, natural gas curtailment, or breakdown of delivery system such as an unavoidable interruption of supply that makes it impossible to fire natural gas in the unit. Fuel is not considered emergency fuel if it is used to avoid either peak demand charges or high gas prices during on-peak price periods or due to a voluntary reduction in natural gas usage by the power company.~~

213 ~~EMISSION CONTROL SYSTEM (ECS) – A system approved in writing by the Control Officer, designed and operated in accordance with good engineering practice to reduce emissions.~~

214 ~~FOSSIL FUEL – Naturally occurring carbonaceous substances from the ground such as natural gas, petroleum, coal and any form of solid, liquid, or gaseous fuel derived from such material for the purpose of creating energy.~~

215 ~~FUEL SWITCHING STARTUP PROCESS – The act of changing from one type of fuel to a different type of fuel.~~

216 HEAT INPUT – Heat derived from the combustion of fuel, not including the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, and kilns.

217 HIGHER HEATING VALUE (HHV) or GROSS HEATING VALUE – The amount of heat produced by the complete combustion of a unit quantity of fuel determined by a calorimeter wherein the combustion products are cooled to the temperature existing before combustion and all of the water vapor is condensed to liquid.

218 LOW SULFUR OIL – Fuel oil containing less than or equal to 0.05 % by weight of sulfur.

219 LOWER HEATING VALUE (LHV) OR NET HEATING VALUE – The amount of heat produced by the complete combustion of a unit quantity of fuel determined by a calorimeter wherein the combustion products are cooled to the temperature existing before combustion and all of the water vapor remains as vapor and is not condensed to a liquid. The value is computed from the higher heating value by subtracting the water originally present as moisture and the water formed by combustion of the fuel.

220 NATURAL GAS CURTAILMENT - An interruption in natural gas service, such that the daily fuel needs of a combustion unit cannot be met with natural gas available due to one of the following reasons, beyond the control of the owner or operator:

220.1 An unforeseeable failure or malfunction, not resulting from an intentional act or omission that the governing state, federal or local agency finds to be due to an act of gross negligence on the part of the owner or operator; or

220.2 A natural disaster; or

220.3 The natural gas is curtailed pursuant to governing state, federal or local agency rules or orders; or

220.4 The serving natural gas supplier provides notice to the owner or operator that, with forecasted natural gas supplies and demands, natural gas service is expected to be curtailed pursuant to governing state, federal or local agency rules or orders.

221 OPACITY – A condition of the ambient air, or any part thereof, in which an air contaminant partially or wholly obscures the view of an observer.

222 PARTICULATE MATTER EMISSIONS – Any and all particulate matter emitted to the ambient air as measured by applicable state and federal test methods.

223 PEAK LOAD – 100% of the manufacturer's design capacity of a gas turbine at 288° Kelvin, 60% relative humidity, and 101.3 kilopascals pressure (ISO standard day conditions).

224 POWER PLANT OPERATION – An operation whose purpose is to supply more than one-third of its potential electric output capacity to any utility power distribution system for sale.

225 RATED HEAT INPUT CAPACITY – The heat input capacity in million Btu/hr. as specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified

such that its maximum heat input is different than the heat input capacity on the name plate, the maximum heat input shall be considered the rated heat input capacity.

226 REGENERATIVE CYCLE GAS TURBINE – Any stationary gas turbine that recovers thermal energy from the exhaust gases and utilizes the thermal energy to preheat air prior to entering the combustion unit.

227 RESIDUAL OIL – The heavier oils that remain after the distillate oils and lighter hydrocarbons are distilled off in refinery operations. This includes crude oil or fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 % by weight, and all fuel oil numbers 4, 5, and 6, as defined by the American Society of Testing and Materials in ASTM D396-01, "Standard Specifications for Fuel Oils."

228 SIMPLE CYCLE GAS TURBINE – Any stationary gas turbine that does not recover heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine, or that does not recover heat from the gas turbine exhaust gases to heat water or generate steam.

229 STATIONARY GAS TURBINE – Any simple cycle gas turbine, regenerative gas turbine or any gas turbine portion of a combined cycle gas turbine that is not self propelled or that is attached to a foundation.

230 SULFUR OXIDES (SOx) – The sum of the oxides of sulfur emitted from the flue gas from a combustion unit that are directly dependent upon the amount of sulfur in the fuel used.

231 THIRTY (30) DAY ROLLING AVERAGE – An arithmetic mean or average of all hourly emission rates for 30 successive combustion equipment operating days and calculated by a CEMS every hour.

232 THREE (3) HOUR ROLLING AVERAGE – An arithmetic mean or average of the most recent three one (1) hour tests, or an arithmetic mean or average over a period of three hours which is newly calculated with each hourly measurement.

233 TOTAL DISSOLVED SOLIDS (TDS) – The amount of concentrated matter reported in milligrams/liter (mg/l) or parts per million (ppm) left after filtration of a well-mixed sample through a standard glass fiber filter. The filtrate is evaporated to dryness in a weighed dish and dried to constant weight at 180° C and the increase in dish weight represents the total dissolved solids.

234 UNCOMBINED WATER – Condensed water containing no more than analytical trace amounts of other chemical elements or compounds.

SECTION 300 – STANDARDS

301 LIMITATIONS – PARTICULATE MATTER:

301. 1 Fuel Type: An owner or operator of any combustion equipment listed in Section 102 shall burn only natural gas except when firing emergency fuel per subsections 104.2 and 104.3 of this rule. An owner or operator may burn a fuel other than natural gas for non-emergency purposes providing that the fuel shall not cause to be discharged more

than 0.007 lbs. of particulate matter per MMBtu, demonstrated and documented through performance testing of this alternate fuel using Test Method 5. This usage of different fuels other than natural gas shall be approved by the Control Officer prior to usage.

301.2 Particulate Matter Testing – A backhalf analysis shall be performed, using Reference Method 202 referenced in subsection 504.6, each time a compliance test for particulate matter emissions to meet the standard in subsection 301.1 of this rule is performed using Test Method 5.

301.3 Good Combustion Practices for Turbines: An owner or operator of any stationary gas turbine listed in subsection 102.2, regardless of fuel type, shall use operational practices recommended by the manufacturer and parametric monitoring to ensure good combustion control as listed below. One of the following procedures may be used:

a. Monitor the maximum temperature differential across the combustion burners or at locations around the back end of the turbine, dependent upon the particular unit, to ensure no more than a 100°F difference using a thermocouple. If a valid maximum temperature differential of greater than 100°F is observed across the burners, investigation and corrective action shall be taken within three hours to reduce the temperature difference to 100°F or less; or

b. If the manufacturer recommends that the maximum numerical temperature differential to ensure good combustion is a temperature that is greater than 100°F, then proof of this maximum alternate temperature shall be submitted to the Control Officer. The procedure to measure the maximum temperature differential listed above in subsection 301.3a shall then be followed using this alternate recommended maximum temperature differential after approval by the Control Officer.

c. If the frequency of failure to meet the proper temperature differential of 100°F or to meet the alternate temperature differential recommended by the manufacturer reflects a pattern that the turbine is not being operated in a manner consistent with good combustion practices, then the Control Officer may require the owner or operator to submit a Corrective Action Plan (CAP).

301.4 Cooling Towers: An owner or operator of a cooling tower associated with applicable units listed in Section 102 shall:

a. Equip the cooling tower with a drift eliminator. The drift eliminator shall not be manufactured out of wood.

b. The concentration of Total Dissolved Solids (TDS) multiplied by the percentage of drift rate shall not exceed the maximum numerical limit of 20.

c. Visually inspect the drift eliminator on a monthly basis only if the drift eliminator can be viewed safely and does not require an owner or operator to

walk into the tower. If the drift eliminator cannot be safely inspected monthly then subsection 301.4d shall apply:

d. Visually inspect the drift eliminator for integrity during a regularly scheduled outage when the cooling tower is not operating, if it cannot be inspected on a monthly basis. This visual inspection shall be no less than once per year.

302 LIMITATIONS – OPACITY:

302.1 No person shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity, except as provided in subsection 302.2.

302.2 Opacity may exceed the applicable limits established in subsection 302.1 for up to one hour during the start - up of switching fuels; however, opacity shall not exceed 40% for any six (6) minute averaging period in this one hour period, provided that the Control Officer finds that the owner or operator has, to the extent practicable, maintained and operated the source of emissions in a manner consistent with good air pollution control practices for minimizing emissions. The one hour period shall begin at the moment of startup of fuel switching.

302.3 Determination of whether good air pollution control practices are being used shall be based on information provided to the Control Officer upon request, which may include, but is not limited to, the following:

a. Monitoring results.

b. Opacity observations.

c. Review of operating and maintenance procedures.

d. Inspection of the source.

303 LIMITATIONS - SULFUR IN FUEL: An owner or operator of any applicable equipment listed in Section 102 that burns fuel oil alone or in combination with any other fuel as either emergency fuel or non-emergency fuel that meets the standards in subsection 301.1 shall use only low sulfur oil.

304 LIMITATIONS – NITROGEN OXIDES: No owner or operator of any applicable equipment listed in subsection 102.1 that commenced construction or a major modification after May 30, 1972 shall cause to be discharged into the atmosphere nitrogen oxides in excess of the following limits:

304.1 155 ppmv, calculated as nitrogen dioxide when burning gaseous fossil fuel. During steady state operations, this test result using EPA Reference Method(s) 7 shall be based upon the arithmetic mean of the results of three test runs. Each test run shall have a minimum sample time of one hour. If a Continuous Emission Monitoring System (CEMS) is used, the test result shall be based upon a 30-day rolling average.

304.2 230 ppmv calculated as nitrogen dioxide when burning liquid fossil fuel. During steady state operations, this test result using EPA Reference Method(s) 7, shall be based upon the arithmetic mean of the results of three test runs. Each test run shall have a minimum sample time of one hour. If a CEMS is used, the test result shall be based upon a 30-day rolling average.

304.3 The nitrogen oxides concentration shall be measured dry and corrected to 3% oxygen for electric utility steam generating units and cogeneration steam generating units. The nitrogen oxides concentration shall be measured dry and corrected to 15% oxygen for stationary gas turbines.

305 LIMITATIONS - CARBON MONOXIDE: No owner or operator of any equipment listed in Section 102 shall cause to be discharged into the atmosphere carbon monoxide (CO) measured in excess of 400 ppmv at any time. This test result, using EPA Reference Method 10, and performed during steady state compliance source testing shall be based upon the arithmetic mean of the results of three test runs. Each test run shall have a minimum sample time of one hour. The CO concentration shall be measured dry and corrected to 3% oxygen for electric utility steam generating units and cogeneration steam generating units. The CO concentration shall be measured dry and corrected to 15% oxygen for stationary gas turbines.

306 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT:

306.1 Emission Control System Required: For affected operations which may exceed any of the applicable standards set forth in Section 300 of this rule, an owner or operator may comply by installing and operating an emission control system (ECS).

306.2 Providing and Maintaining ECS Monitoring Devices: No owner or operator required to use an approved ECS pursuant to this rule shall do so without first properly installing, operating, and maintaining in calibration and in good working order, devices for indicating temperatures, pressures, transfer rates, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained as described in an approved Operation and Maintenance (O&M) Plan.

306.3 Operation and Maintenance (O&M) Plan Required For ECS:

a. General Requirements: An owner or operator shall provide and maintain an O&M Plan for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution permit.

b. Approval by Control Officer: An owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to this rule.

c. Initial Plans: An owner or operator that is required to have an O&M Plan pursuant to this rule shall comply with all O&M Plans that the owner or operator has submitted for approval, but which have not yet been approved,

unless notified by the Control Officer in writing. Once the initial plan has been approved in writing by the Control Officer, an owner or operator shall then comply with the approved plan.

d. Revisions to Plan: If revisions to the initial plan have been approved by the Control Officer in writing, an owner or operator shall comply with the revisions to the initial plan. If revisions to the plan have not yet been approved by the Control Officer, then an owner or operator shall comply with the newest recent O&M plan on file at Maricopa County Air Quality Department.

e. Control Officer Modifications to Plan: After discussion with the owner or operator, the Control Officer may modify the plan in writing prior to approval of the initial O & M plan. An owner or operator shall then comply with the plan that has been modified by the Control Officer.

306.4 Continuous Emission Monitoring Systems (CEMS):

a. An owner or operator of a combustion unit subject to Section 304 with a heat input of greater than 250 MMBtu/hr, regardless of fuel type, shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides and recording the output of the system. Where nitrogen oxide emissions are monitored by a CEMS, then a CEMS shall also be required for the measurement of the oxygen content of the flue gases. All CEMS shall comply with the provisions in 40 CFR Subpart Da, Part 60, 60.47 (a).

b. An owner or operator of any affected unit listed above that requires a CEMS for nitrogen oxides that meets and is continuing to meet the requirements of 40 CFR Part 75 may use that CEMS to meet the requirements of subsection 306.4 a of this rule.

307 EMERGENCY FUEL USE NOTIFICATION – An owner or operator of a unit that is fired with emergency fuel but is normally fired with natural gas shall notify the Control Officer verbally no later than 24 hours after declaration of the emergency that necessitates its use in compliance with subsections 104.2 and 212. This verbal report shall be followed by a written report within 48 hours of initial emergency fuel usage. The written report shall also include identification of the nature of the emergency, initial dates of usage, and the expected dates of usage.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any owner or operator subject to this rule shall comply with the requirements set forth in this section. Any records and data required by this section shall be kept on site at all times in a consistent and complete manner and be made available without delay to the Control Officer or his designee upon request. Records shall consist of the following information:

501.1 Equipment Listed in Section 102: Type of fuel used, amount of fuel used, amount of sulfur in the fuel if using liquid fuel, and the days and hours of operation.

501.2 Cooling Towers: Monthly gravimetric testing reports for TDS shall be recorded for six months in succession and thereafter quarterly reports shall be recorded. Results of the monthly or yearly visual inspection of the drift eliminator shall also be recorded. If the drift eliminator cannot be visually inspected monthly, then documentation of the physical configuration of the drift eliminator shall be submitted to the Control Officer to demonstrate that the drift eliminator cannot be inspected monthly.

501.3 Emergency Fuel Usage: Type and amount of emergency fuel used, dates and hours of operation using emergency fuel, nature of the emergency or reason for the use of emergency fuel as stated in subsections 104.2 and 104.3.

501.4 Fuel Switching: Monthly records of fuel switching including stop and start times, monthly records of hours of operation for testing, reliability and maintenance purposes per subsection 104.3, and a yearly log total of these hours.

501.5 CEMS: All CEMS measurements, results of CEMS performance evaluations, CEMS calibration checks, and adjustments and maintenance performed on these systems.

501.6 Good Combustion Practices: Measurements of the temperature differential across the burners of turbines per subsection 301. 3 a, b, or c, results of evaluation and of corrective action taken to reduce the temperature differential or a finding that the temperature differential returned to the range listed in subsection 301.3 a or b without any action by the owner or operator.

502 RECORDS RETENTION: Copies of reports, logs, and supporting documentation required by the Control Officer shall be retained for at least 5 years. Records and information required by this rule shall also be retained for at least 5 years.

503 COMPLIANCE DETERMINATION:

503.1 Low Sulfur Oil Verification:

a. An owner or operator shall submit fuel oil or liquid fuel receipts from the fuel supplier indicating the sulfur content of the fuel or verification that the oil used to generate electric power meets the 0.05% sulfur limit if requested by the Control Officer; or

b. If fuel receipts are not available then an owner or operator shall submit a statement of certification or proof of the sulfur content of the oil or liquid fuel from the supplier to the Control Officer; or

c. An owner or operator may elect to test the fuel for sulfur content in lieu of certification from the fuel supplier or fuel receipts using one of the test methods listed in subsections 504.11, 504.12, 504.13 or 504.14.

503.2 Drift Rate Verification: An owner or operator shall submit design drift rate verification from the manufacturer of the drift eliminator used in the cooling towers to the Control Officer if proof of the design drift rate is requested by the Control Officer.

504 TEST METHODS INCORPORATED BY REFERENCE: The EPA test methods as they exist in the Code of Federal Regulations (CFR) (July 1, 2004), as listed below, are incorporated by reference in Appendix G of the Maricopa County Air Pollution Control Regulations. Copies of test methods referenced in this Section are available at the Maricopa County Air Quality Department, 1001 N. Central Avenue, Suite 595, Phoenix, AZ 85004-1942.

The Standard Methods listed below (1995) are also incorporated by reference. When more than one test method as listed in subsections 504.11 through 504.14 is permitted for the same determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation.

504.1 EPA Reference Methods 1 ("Sample and Velocity Traverses for Stationary Sources"), and 1A ("Sample and Velocity Traverses for Stationary Sources with Small Stacks and Ducts") (40 CFR 60, Appendix A).

504.2 EPA Reference Methods 2 ("Determination of Stack Gas Velocity and Volumetric Flow Rate"), 2A ("Direct Measurement of Gas Volume Through Pipes and Small Ducts"), 2C ("Determination of Stack Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts"), and 2D ("Measurement of Gas Volumetric Flow Rates in Small Pipes and Ducts") (40 CFR 60, Appendix A).

504.3 EPA Reference Methods 3 ("Gas Analysis for the Determination of Dry Molecular Weight"), 3A ("Determination of Oxygen and Carbon Dioxide Concentrations in Emissions From Stationary Sources (Instrumental Analyzer Procedure)"), 3B ("Gas Analysis for the Determination of Emission Rate Correction Factor of Excess Air"), and 3C ("Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources") (40 CFR 60, Appendix A).

504.4 EPA Reference Method 4 ("Determination of Moisture Content in Stack Gases") (40 CFR 60, Appendix A).

504.5 EPA Reference Method 5 ("Determination of Particulate Emissions from Stationary Sources") (40 CFR 60, Appendix A).

504.6 EPA Reference Method 202 ("Determination of Condensable Particulate Emissions from Stationary Sources") (40 CFR 51, Appendix M).

504.7 EPA Reference Methods 7 ("Determination of Nitrogen Oxide Emissions from Stationary Sources"), 7A ("Determination of Nitrogen Oxide Emissions from Stationary Sources"), 7B ("Determination of Nitrogen Oxide Emissions from Stationary Sources - Ultraviolet Spectrometry"), 7C ("Determination of Nitrogen Oxide Emissions from Stationary Sources - Alkaline-Permanganate Colorimetric Method"), 7D ("Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline-Permanganate Chromatographic Method"), and 7E ("Determination of

~~Nitrogen Oxide Emissions from Stationary Sources – Instrumental Analyzer Method") (40 CFR 60, Appendix A).~~

~~504.8 EPA Reference Method 9 ("Visual Determination of the Opacity of Emissions from Stationary Sources") (40 CFR 60, Appendix A).~~

~~504.9 EPA Reference Method 10 ("Determination of Carbon Monoxide Emissions from Stationary Sources") (40 CFR 60, Appendix A).~~

~~504.10 EPA Reference Method 20 ("Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines") (40 CFR 60, Appendix A).~~

~~504.11 American Society of Testing Materials, ASTM Method D2622-98, ("Standard Test Method for Sulfur in Petroleum Products by Wavelength Disperse X-Ray Fluorescence Spectrometry"), 1998.~~

~~504.12 American Society of Testing Materials, ASTM Method D1266-98, ("Standard Test Method for Sulfur in Petroleum Products - Lamp Method"), 1998.~~

~~504.13 American Society of Testing Materials, ASTM Method D2880-00, ("Standard Specification for Gas Turbine Fuel Oils"), 2000.~~

~~504.14 American Society of Testing Materials, ASTM Method D4294-90 or 98 ("Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry"), 1990 or 1998.~~

~~504.15 Standard Methods for the Examination of Water and Wastewater,("Dissolved Solids Dried at 180ºC, Method #2540C"), American Public Health Association, 19th edition, 1995.~~

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 322 (Power Plant Operations), as revised and adopted October 17, 2007)**

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 323

FUEL BURNING EQUIPMENT FROM INDUSTRIAL /COMMERCIAL/ INSTITUTIONAL (ICI) SOURCES

INDEX

SECTION 500 - MONITORING AND RECORDS
501 RECORDKEEPING AND REPORTING
502 RECORDS RETENTION
503 COMPLIANCE DETERMINATION
504 TEST METHODS INCORPORATED BY REFERENCE

Adopted 07/03/05
Revised 10/17/07

REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 323
FUEL BURNING EQUIPMENT FROM INDUSTRIAL /COMMERCIAL/ INSTITUTIONAL (ICI) SOURCES
INDEX

SECTION 100 – GENERAL

101 PURPOSE: To limit the discharge of nitrogen oxides, sulfur oxides, carbon monoxide, and particulate matter emissions into the atmosphere from fuel burning combustion equipment at industrial and/or commercial and/or institutional (ICI) sources.

102 APPLICABILITY: This rule applies to any of the following types of ICI combustion equipment that burns either fossil fuels or alternative fuels:

102.1 Each steam generating unit that has a maximum design rated heat input capacity from fuels combusted in the generating unit of greater than 10 million (MM) Btu/hr (2.9 Megawatts (MW)).

102.2 Each stationary gas turbine with a heat input at peak load equal to or greater than 2.9 megawatts (MW).

102.3 Each cogeneration steam generating unit with a heat input of greater than 10 MMBtu/hr.

102.4 Each indirect-fired process heater with a heat input greater than 10 MMBtu/hr.

102.5 NSPS & NESHAP: In addition to this rule, facilities may be subject to New Source Performance Standards (NSPS) in Rule 360 and/or National Emission Standards for Hazardous Air Pollutants (NESHAP) in Rule 370 of these Rules.

103 EXEMPTIONS: This rule shall not apply to the following types of equipment:

103.1 Incinerators, crematories, or burn-off ovens; or

103.2 Dryers, cement and lime kilns; or

103.3 Direct-fired process heaters; or

103.4 Medical waste incinerators; or

103.5 Reciprocating internal combustion equipment; or

103.6 Combustion equipment used in power plant operations for the purpose of supplying greater than one-third of the electricity to any utility power distribution system for sale; or

103.7 Combustion equipment associated with nuclear power plant operations; or

103.8 Water heaters used for the sole purpose of heating hot water for comfort or for radiant heat.

104 PARTIAL EXEMPTIONS:

104.1 Stationary gas turbines listed in subsection 102.2 of this rule that are used for any of the following reasons shall be exempt from Sections 304, 305 and subsections 301.1, 301.2, 501.1 and 501.3 of this rule:

a. Used for firefighting; or

b. Used for flood control; or

c. Used at military training facilities other than a garrison facility; or

d. Engaged by manufacturers in research and the development of equipment for either gas turbine emission control techniques or gas turbine efficiency improvements; or

e. Fired with emergency fuel that is normally fired with natural gas, or

f. Testing, reliability, maintenance, training, and readiness purposes for a total of 36 hours per year per unit when firing any emergency fuel.

104.2 All steam generating units including cogeneration units and process heaters that are used for any of the following reasons shall be exempt from Sections 301, 304, 305 and subsections 501.1 and 501.3 of this rule:

a. Fired with an emergency fuel that is normally fired with natural gas; or

b. Firing any emergency fuel for testing, reliability, and maintenance purposes up to a maximum total of 36 hrs. per unit per year.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply. See Rule 100 (General Provisions and Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

201 ~~ALTERNATIVE FUELS – Substitutes for traditional oil-derived and fossil-fuel derived motor vehicle fuels including but not limited to biodiesel, propane, ethanol or methanol.~~

202 ~~COGENERATION STEAM GENERATING UNIT – A steam or hot water generating unit that simultaneously produces both electrical (or mechanical) and thermal energy (such as heat or steam) from the same primary energy source.~~

203 ~~CORRECTIVE ACTION PLAN (CAP) – A methodical procedure that is used to evaluate and correct a turbine operational problem and that includes, at a minimum, improved preventative maintenance procedures, improved ECS operating practices, possible operational amendments, and progress reports.~~

204 ~~DISTILLATE OIL-A petroleum fraction of fuel oil produced by distillation that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-01, "Standard Specification for Fuel Oils."~~

205 ~~EMERGENCY FUEL – Fuel fired by a gas combustion unit, normally fueled by natural gas, only during circumstances of unforeseen disruption or interruption in the supply of natural gas to a unit that normally runs on natural gas. The inability to burn natural gas may be one of the following, but is not limited to, natural gas emergency, natural gas curtailment, or a breakdown of the delivery system.~~

206 ~~EMISSION CONTROL SYSTEM (ECS) - A system approved in writing by the Control Officer, designed and operated in accordance with good engineering practice to reduce emissions.~~

207 ~~FOSSIL FUEL – Naturally occurring carbonaceous substances from the ground such as natural gas, petroleum, coal, and any form of solid, liquid or gaseous fuel derived from such material for the purpose of creating energy.~~

208 ~~HEAT INPUT – Heat derived from the combustion of fuel not including the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, and kilns.~~

209 ~~LOW SULFUR OIL – Fuel oil containing less than or equal to 0.05 % by weight of sulfur.~~

210 ~~NATURAL GAS CURTAILMENT – A shortage in the supply of natural gas, due solely to limitations or restrictions in distribution pipelines by the utility supplying the gas and not due to the cost of natural gas.~~

211 ~~OPACITY – A condition of the ambient air, or any part thereof, in which an air contaminant partially or wholly obscures the view of an observer.~~

212 ~~PARTICULATE MATTER EMISSIONS - Any and all particulate matter emitted to the ambient air as measured by applicable state and federal test methods.~~

213 ~~PEAK LOAD - 100% of the manufacturer's design capacity of a gas turbine at 288 Kelvin, 60% relative humidity, and 101.3 kilopascals pressure (ISO standard day conditions).~~

214 ~~PROCESS HEATER – An enclosed combustion device that uses controlled flame to transfer heat to a process fluid or a process material that is not a fluid or to heat transfer material for use in a process unit (not including the generation of steam). A process heater may be either indirect or direct-fired, dependent upon whether the gases of combustion mix with and exhaust to the same stack or vent (direct-fired) with gases emanating from the process material or not (indirect-fired). Emissions from indirect-fired units consist entirely of products of combustion while emissions from direct-fired units are unique to the given process and may vary widely in any industrial process. A process heater is not an oven or kiln used for drying, curing, baking, cooking, calcining, or vitrifying.~~

215 ~~RATED HEAT INPUT CAPACITY - The heat input capacity in million Btu/hr. as specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified so that its maximum heat input is different than the heat input capacity on the nameplate (design heat capacity), the maximum heat input shall be considered as the rated heat input capacity.~~

216 ~~REGENERATIVE CYCLE GAS TURBINE – Any stationary gas turbine that recovers thermal energy from the exhaust gases and utilizes the thermal energy to preheat air prior to entering the combustor.~~

217 ~~RESIDUAL OIL – The heavier oils that remain after the distillate oils and lighter hydrocarbons are distilled off in refinery operations. This includes crude oil or fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05% by weight, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396-01, "Standard Specifications for Fuel Oils".~~

218 ~~SIMPLE CYCLE GAS TURBINE – Any stationary gas turbine that does not recover heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine, or that does not recover heat from the gas turbine exhaust gases to heat water or generate steam.~~

219 ~~STATIONARY GAS TURBINE – Any simple cycle gas turbine or regenerative gas turbine that is not self-propelled or that is attached to a foundation.~~

220 ~~STEAM GENERATING UNIT - An external combustion unit or boiler fired by fossil fuel that is used to generate hot water or steam. The hot water or steam is then used as energy for driving another process or piece of equipment.~~

221 ~~SULFUR OXIDES (SOx)- The sum of the oxides of sulfur emitted from the flue gas from a combustion unit that are directly dependent upon the amount of sulfur in the fuel used.~~

222 ~~UNCOMBINED WATER – Condensed water containing no more than analytical trace amounts of other chemical elements or compounds.~~

223 WASTE DERIVED FUEL GAS – Any gaseous fuel that is generated from the biodegradation of solid or liquid waste including but not limited to, sewage sludge, digester gas, and landfill gas.

224 WATER HEATER – A closed vessel in which water is heated by combustion of fuel and water is either withdrawn for use external to the vessel (at pressures not exceeding 160 psi with all controls and devices preventing water temperatures from exceeding 210°F) or used for radiant heat. Water heaters are usually no larger than 1 MM Btu/hr as opposed to boilers, do not reach temperatures of 220°F and higher that boilers can reach, and are not manufactured to meet boiler codes.

SECTION 300 - STANDARDS

301 LIMITATIONS - PARTICULATE MATTER:

301.1 Limitation- Liquid Fuels: An owner or operator shall not discharge, cause or allow the discharge of particulate matter emissions, caused by combustion of non-gaseous liquid fuels or a blend of liquid fuels with other fuels in excess of 0.10 lbs. per MMBtu from any combustion units listed in subsections 102.1, 102.3 and 102.4 with either a rated heat input capacity or heat input of greater than 100 MM Btu/hr.

301.2 Particulate Matter Testing: A backhalf analysis shall be performed, using Reference Method 202 referenced in subsection 504.6 of this rule, each time a compliance test for particulate matter emissions to meet the standards in subsection 301.1 of this rule is performed using Method 5. (The results of the Method 202 testing shall be used for emissions inventory purposes).

301.3 Good Combustion Practices for Turbines: An owner or operator of a stationary gas turbine listed in subsection 102.2 of this rule, regardless of fuel type or size, shall use operational practices recommended by the manufacturer and parametric monitoring that ensure good combustion control. One of the following procedures may be used:

a. Monitor the maximum temperature differential across the combustion burners or at locations around the back end of the turbine, dependent upon the particular unit, to ensure no more than a 100° F difference using a thermocouple. If a valid maximum temperature differential of greater than 100° F is observed across the burners, investigation and corrective action shall be taken within three hours to either reduce the temperature difference to 100° F or less, or

b. If the manufacturer recommends that the maximum numerical temperature differential to ensure good combustion is a temperature that is greater than 100°F, then proof of this maximum alternate temperature shall be submitted to the Control Officer. The procedure to measure the maximum temperature differential listed above in subsection 301.3a shall

then be followed using the alternate recommended maximum temperature differential after approval by the Control Officer.

c. If a repetitive pattern of failure to meet the proper temperature differential of 100°F or to meet the alternate temperature differential recommended by the manufacturer indicates that the turbine is not being operated in a manner consistent with good combustion practices, then the Control Officer may require the owner or operator to submit a Corrective Action Plan (CAP).

302 LIMITATIONS – OPACITY: No owner or operator shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.

303 LIMITATIONS - SULFUR IN FUEL: An owner or operator of any applicable equipment listed in Section 102 that burns liquid fuel oil or a mixture or blend of fuel oil with any other fuels shall use only low sulfur oil. An owner or operator using waste derived fuel gas shall use only waste derived fuel gas with a sulfur content less than or equal to 800 ppm (0.08%).

304 LIMITATIONS – NITROGEN OXIDES:

304.1 An owner or operator of any combustion equipment listed in Section 102 with a heat input of greater than 10 MMBtu/hr to 100 MMBtu/hr, except gas turbines, shall comply either with (a) or (b below:

a. Establish initial optimal baseline concentrations for NOx and CO within 90 days of the first usage of the combustion equipment utilizing the initial design burner specifications or manufacturer's recommendations to ensure good combustion practices. Tune the unit annually in accordance with good combustion practices or a manufacturer's procedure, if applicable, that will include the following at a minimum:

(1) Inspect the burner system and clean and replace any components of the burner as necessary to minimize emissions of NOx and CO; and

(2) Inspect the burner chamber for areas of impingement and remove if necessary; and

(3) Inspect the flame pattern and make adjustments as necessary to optimize the flame pattern; and

(4) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly; and

(5) Measure the NOx and the CO concentration of the effluent stream after each adjustment was made with a handheld portable monitor to ensure optimal baseline concentrations are maintained or

b. Limit nitrogen oxide emissions to no more than the following amounts:

(1) 155 ppm calculated as nitrogen dioxide, when burning gaseous fuel. During steady state operations, this test result using EPA Reference Method(s) 7 shall be based upon the arithmetic mean of the results of three test runs. Each test run shall have a minimum sample run time of one hour.

(2) 230 ppm calculated as nitrogen dioxide, when burning liquid fuel. During steady state operations, this test result using EPA Reference Method(s) 7 shall be based upon the arithmetic mean of the results of three test runs. Each test run shall have a minimum sample run time of one hour.

c. For simple gas turbines, the nitrogen oxides shall be measured dry and corrected to 15% oxygen. For all other combustion equipment, the nitrogen oxides shall be measured dry and corrected to 3% oxygen.

304.2 An owner or operator of any combustion equipment, listed in Section 102, with a heat input greater than 100 MMBtu/hr, shall:

a. Tune the equipment every 6 months with good combustion practices or a manufacturer's procedure that at a minimum includes the procedures listed in subsection 304.1a of this rule and

b. Meet the NOx emission limits as stated in subsection 304.1b of this rule.

305 LIMITATIONS – CARBON MONOXIDE: No owner or operator of any equipment listed in Section 102 of this rule with a heat input greater than 100 MM Btu/hr shall cause to be discharged into the atmosphere, carbon monoxide (CO), measured in excess of 400 ppmv at any time. This test result, using EPA Reference Method 10, shall be based upon the arithmetic mean of the results of three test runs and shall be measured during steady state compliance source testing. Each test run shall have a minimum sample time of one hour. For simple gas turbines, the CO shall be measured dry and corrected to 15% oxygen. For all other combustion equipment, the CO shall be measured dry and corrected to 3% oxygen.

306 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT:

306.1 Emission Control System Required: For affected operations which may exceed any of the applicable standards set forth in Sections 300 of this rule, an owner or operator may comply by installing and operating an emission control system (ECS).

306.2 Providing and Maintaining ECS Monitoring Devices: No owner or operator required to use an approved ECS pursuant to this rule shall do so without first providing, properly installing, operating, and maintaining in calibration and in good working order, devices for indicating temperatures, pressures,

transfer rates, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained as described in an approved O&M Plan.

306.3 Operation and Maintenance (O&M) Plan Required For ECS:

a. General Requirements: An owner or operator shall provide and maintain an O&M Plan for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or an air pollution permit.

b. Approval by Control Officer: An owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to this rule.

c. Initial Plans: An owner or operator that is required to have an O&M Plan pursuant to this rule shall comply with all O&M Plans that the owner or operator has submitted for approval, but which have not yet been approved, unless notified by the Control Officer in writing. Once the initial plan has been approved in writing by the Control Officer, an owner or operator shall comply with this approved plan.

d. Revisions to Plan: If revisions to the initial plan have been approved by the Control Officer in writing, an owner or operator shall comply with the revisions to the initial plan. If revisions to the plan have not yet been approved by the Control Officer in writing, then an owner or operator shall comply with the most recent O&M plan on file at Maricopa County Air Quality Department.

e. Control Officer Modifications to Plan: After discussion with the owner or operator, the Control Officer may modify the plan in writing prior to approval of the initial O&M plan. An owner or operator shall then comply with the plan that has been modified by the Control Officer.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: An owner or operator subject to this rule shall comply with the requirements set forth in this section. Any records and data required by this section shall be kept on site at all times in a consistent and complete manner and be made available without delay to the Control Officer or his designee upon request. Records shall consist of the following information:

501.1 Equipment Listed In Section 102: Type of fuel used, amount of fuel used, amount of sulfur in the fuel if using liquid fuel, and the days and hours of operation.

501.2 Emergency Fuel Usage: Monthly records of: type of emergency fuel used, dates and hours of operation using emergency fuel, and nature of the emergency or purpose for the use of the emergency fuel as stated in subsections 104.1 and 104.2. Yearly records of the twelve month log of hours of operation in the emergency mode.

501.3 Good Combustion Practice: Measurements of the temperature differential across the burners of turbines per subsection 301.3, results of evaluation and corrective action taken to reduce the temperature differential or a finding that the temperature differential returned to the range listed in subsection 301.3 (a) or (b) of this rule without any action by the owner or operator.

501.4 Tuning Procedure: Date that the procedure was performed on the particular unit and at a minimum: stack gas temperature, flame conditions, nature of the adjustment and results of the nitrogen oxide and carbon monoxide concentrations obtained by using a handheld monitor after each adjustment.

502 RECORDS RETENTION: Copies of reports, logs and supporting documentation required by the Control Officer shall be retained for at least 5 years. Records and information required by this rule shall also be retained for at least 5 years.

503 COMPLIANCE DETERMINATION:

503.1 Low Sulfur Oil Verification:

a. An owner or operator shall submit fuel oil receipts from the fuel supplier indicating the sulfur content of the fuel oil or verification that the fuel oil used meets the 0.05% sulfur limit or the 0.08% limit for landfill or digester gas if requested by the Control Officer, or

b. If fuel receipts are not available, an owner or operator shall submit a statement of certification or proof of the sulfur content of the fuel oil from the supplier to the Control Officer, or

c. An owner or operator may elect to test the fuel oil for sulfur content in lieu of certification from the fuel supplier or fuel receipts using one of the test methods incorporated by reference in subsections 504.11, 504.12, 504.14 or 504.15.

504 TEST METHODS ADOPTED BY REFERENCE: The EPA test methods as they exist in the Code of Federal Regulations (CFR) (July 1, 2004), as listed below, are incorporated by reference in Appendix G of the Maricopa County Air Pollution Control Regulations. Copies of test methods referenced in this section are available at the Maricopa County Air Quality Department, 1001 N. Central Avenue, Phoenix, AZ 85004-1942. When more than one test method as listed in subsections 504.11, 504.12, 504.14, or 504.15 of this rule is permitted for the same determination, an exceedance of the limits established in this rule determined by any one of the applicable test methods constitutes a violation.

~~504.1 EPA Reference Methods 1 ("Sample and Velocity Traverses for Stationary Sources"), and 1-A ("Sample and Velocity Traverses for Stationary Sources with Small Stacks and Ducts") (40 CFR 60, Appendix A).~~

~~504.2 EPA Reference Methods 2 ("Determination of Stack Gas Velocity and Volumetric Flow Rate"), 2A ("Direct Measurement of Gas Volume Through Pipes and Small Ducts"), 2C ("Determination of Stack Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts"), and 2D ("Measurement of Gas Volumetric Flow Rates in Small Pipes and Ducts") (40 CFR 60, Appendix A).~~

~~504.3 EPA Reference Methods 3 ("Gas Analysis for the Determination of Dry Molecular Weight"), 3A ("Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)"), 3B ("Gas Analysis for the Determination of Emission Rate Correction Factor of Excess Air"), and 3C ("Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources") (40 CFR 60, Appendix A).~~

~~504.4 EPA Reference Method 4 ("Determination of Moisture Content in Stack Gases") (40 CFR 60, Appendix A).~~

~~504.5 EPA Reference Method 5 ("Determination of Particulate Emissions from Stationary Sources") (40 CFR 60, Appendix A)~~

~~504.6 EPA Reference Method 202 ("Determination of Condensable Particulate Emissions from Stationary Sources") (40 CFR 51, Appendix M).~~

~~504.7 EPA Reference Methods 7 ("Determination of Nitrogen Oxide Emissions from Stationary Sources"), 7A ("Determination of Nitrogen Oxide Emissions form Stationary Sources"), 7B ("Determination of Nitrogen Oxide Emissions from Stationary Sources – Ultraviolet Spectrometry"), 7C ("Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline-Permanganate Colorimetric Method"), 7D ("Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline – Permanganate Chromatographic Method"), and 7E ("Determination of Nitrogen Oxide Emissions from Stationary Sources – Instrumental Analyzer Method"), (40 CFR 60, Appendix A).~~

~~504.8 EPA Reference Method 9, ("Visual Determination of the Opacity of Emissions from Stationary Sources") (40 CFR 60, Appendix A).~~

~~504.9 EPA Reference Method 10, ("Determination of Carbon Monoxide from Stationary Sources") (40 CFR 60, Appendix A).~~

~~504.10 EPA Reference Method 20, ("Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions From Stationary Gas Turbines") (40 CFR 60, Appendix A).~~

~~504.11 American Society of Testing Materials, ASTM Method D2622-92 or 98, ("Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry"), 1992 or 1998.~~

~~504.12 American Society of Testing Materials, ASTM Method D1266-98, ("Standard Test Method for Sulfur in Petroleum Products (Lamp Method)"), 1998.~~

~~504.13 American Society of Testing Materials, ASTM Method D2880-00, ("Standard Specification for Gas Turbine Fuel Oils"), 2000.~~

~~504.14 American Society of Testing Materials, ASTM Method D4294-90 or 98, ("Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy- Dispersive X-ray Fluorescence Spectrometry"), 1990 or 1998.~~

~~504.15 American Society of Testing Materials, ASTM Method D5504-01,("Standard Test Method for Determination of Sulfur compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence"), 2006.~~

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources), as revised and adopted October 17, 2007)**

## SIP RULE 331: SOLVENT CLEANING

~~REGULATION III - CONTROL OF AIR CONTAMINANTS~~
~~RULE 331~~
~~SOLVENT CLEANING~~
~~INDEX~~

SECTION 300 - STANDARDS

301 SOLVENT HANDLING REQUIREMENTS

302 EQUIPMENT REQUIREMENTS FOR ALL CLEANING MACHINES

303 SPECIFIC OPERATING & SIGNAGE REQUIREMENTS FOR CLEANING MACHINES

304 SOLVENT SPECIFICATIONS FOR NON-VAPOR CLEANING AND DEGREASING

305 NON-VAPOR BATCH CLEANING MACHINES

306 NON-VAPOR IN-LINE CLEANING MACHINES

307 SPECIAL NON-VAPOR CLEANING SITUATIONS

308 EXEMPTIONS

309 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT

SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING

502 COMPLIANCE DETERMINATION AND TEST METHODS

APPENDIX TO RULE 331

VAPOR CLEANING MACHINES AND EMISSION CONTROL SYSTEMS

Revised 07/13/88
Revised 06/22/92
Revised 06/19/96
Revised 04/07/99
Revised 04/21/04

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 331
SOLVENT CLEANING

SECTION 100 - GENERAL

101 PURPOSE: To limit the emissions of volatile organic compounds (VOCs) from cleaning operations.

102 APPLICABILITY: This rule is applicable to operations using VOC-containing solvents to remove impurities from exterior or interior surfaces. Compliance with the provisions of this rule shall not relieve any person subject to the requirements of this rule from complying with any other federally enforceable requirements. In such case, the more stringent requirement shall apply. In any instance where more than one of the requirements set forth in this rule may be applicable, the most restrictive requirement shall apply.

102.1 Solvents regulated by this rule may also be regulated by New Source Performance Standards (NSPS) in Rule 360 of these rules and/or National Emission Standards for Hazardous Air Pollutants (NESHAPs) in Rule 370 of these rules.

102.2 This rule is not applicable to:

a. A solvent cleaning operation that is subject to or specifically exempted by an EPA approved version of another rule within Regulation III of these rules.

b. Janitorial cleaning.

c. Testing for surface cleanliness or the cleaning of laboratory equipment at the laboratory.

d. A cleaning-solvent that meets any of the following:

(1) Is composed of at least 98% water by either weight or volume; or

(2) Contains only water and material which is a dry solid before mixing with water; or

(3) Has a VOC content not exceeding 20 grams per liter (0.17 lb/gal).

102.3 Partial or conditional exemptions from this rule are set forth in Section 308 of this rule.

SECTION 200 – DEFINITIONS: See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

201 AGITATION, AGITATED – A means or state that moves cleaning liquid continuously back and forth, or up and down. This includes such motion created by sound waves, and to the splashing of a rinse stream operated at a pressure that creates a trajectory exceeding 2 feet along the horizontal plane intersecting the nozzle when the nozzle is at a 45° angle above the plane. Liquid motion incidental to a continuous entrance or withdrawal of objects undergoing cleaning is not agitation.

202 BATCH CLEANING MACHINE – A solvent cleaning machine in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the solvent cleaning machine. A solvent cleaning machine, such as a ferris wheel or a cross-rod degreaser, that cleans multiple batch loads simultaneously and is manually loaded, is a batch cleaning machine.

203 BLASTING/MISTING WITH SOLVENT – Cleaning with an applicator that propels cleaning-solvent through the air with a pressure exceeding 10 psig (516 mm Hg), or that atomizes the solvent into mist and/or droplets.

204 CABINET STYLE CLEANING MACHINES – Cleaning machines typically similar in design to domestic dishwashers that are completely enclosed except for optional stack, and have their own reservoir and sump.

205 CARRY-OUT – Solvent carried out of a cleaning machine along with a part being removed from the cleaning machine. The solvent may exist as a liquid coating the part or the part's

hanger, or as a liquid entrapped in cavities and irregular surfaces, or entrapped by capillary action within or on the part.

206 CLEANING-SOLVENT – Solvent used for cleaning that contains more than 2.0% VOC by weight and more than 20 grams of VOC per liter (0.17 lb/gal).

207 CONFORMING SOLVENT - A cleaning-solvent having a total VOC vapor pressure at 68°F (20°C) not exceeding 1 millimeter of mercury column.

208 DEGREASER – See SOLVENT CLEANING MACHINE.

209 DRY SOLID - Any substance that appears and feels dry. Evaporating solids, all of which have a strong odor, are not included.

210 EMISSION CONTROL SYSTEM (ECS) - A system for reducing emissions of volatile organic compounds, consisting of both a capture system and control device(s).

211 FLUSHING WITH SOLVENT - Introducing cleaning-solvent directly into the internal space(s) of an object or assembly using a hose or pipe. Rinsing the outside of an object or assembly and swishing an object or assembly in cleaning-solvent are not considered flushing with solvent. Such activities must comply with Section 303.1 of this rule.

212 FREEBOARD HEIGHT –

212.1 Batch Cleaning Machine: The vertical distance from the solvent/air interface to the least elevated point of the top-rim when the cover is open or removed, measured during idling mode.

212.2 In-Line Cleaning Machine: The vertical distance from the solvent/air interface to the lowest entry/exit point, measured during idling mode.

213 FREEBOARD RATIO – The ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.

214 HEATED SOLVENT - Any cleaning-solvent which is heated by a device to a temperature exceeding 120°F (49°C).

215 IMPERVIOUS – Neither absorbing, adsorbing, nor allowing penetration through, by liquid or vapors.

216 IN-LINE CLEANING MACHINE (CONTINUOUS CLEANING MACHINE) – A solvent cleaning machine that uses an automated handling system, typically a conveyor or automated arm(s), to automatically provide a continuous supply of items to be cleaned. The cleaned item leaves by a route different from its entry route.

217 JANITORIAL CLEANING – The cleaning of building or facility components to keep work areas in clean condition. Building or facility components include, but are not limited to, floors, ceilings, walls, windows, doors, stairs, bathrooms, furnishings, textiles, wash rags, uniforms, and exterior surfaces of office equipment.

218 ~~LEAK – The state or condition in which a cleaning-solvent, excluding a Low-VOC Cleaner, is allowed to seep or drip, or otherwise enters or escapes, at either of the following rate or magnitude:~~

~~218.1 Three or more drops of liquid cleaning-solvent per minute; or~~

~~218.2 Any puddle of cleaning-solvent greater than 1 square inch.~~

219 ~~LOW-VOC CLEANER - Any solution or homogeneous suspension that, as used, contains less than 50 grams of VOC per liter of material (0.42 lb VOC/gal) or is at least 95% water by weight or volume as determined by an applicable test method in Section 502 of this rule.~~

220 ~~MAKE-UP SOLVENT - A cleaning-solvent that replaces solvent lost through evaporation or other means, and that is added to the solvent remaining in a cleaning machine (degreaser) to bring solvent quantity to the desired level.~~

221 ~~MATERIAL VOC CONTENT – See VOC CONTENT OF MATERIAL.~~

222 ~~NON-CONFORMING SOLVENT - A cleaning-solvent having a total VOC vapor pressure at 68°F (20°C) exceeding 1 millimeter of mercury column.~~

223 ~~NON-PRECURSOR ORGANIC COMPOUND – Any of the organic compounds which have been designated by the EPA as having negligible photochemical reactivity. EPA designates such compounds as "exempt". A listing of the compounds is found in Rule 100.~~

224 ~~ORGANIC COMPOUND – Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.~~

225 ~~REFRIGERATED FREEBOARD CHILLER – A control device which is mounted above any cooling-water jacket or primary condenser coils, consisting of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor/air interface to reduce emissions from the cleaning machine (degreaser) bath.~~

226 ~~REMOTE RESERVOIR CLEANING MACHINE (DEGREASER) - Any non-vapor cleaning machine (degreaser) in which the reservoir for storing the cleaning-solvent is completely separated by impervious surfaces from the sink or basin where cleaning is performed, except for a connecting tube through which solvent returns to the reservoir when cleaning is stopped.~~

227 ~~SEALED SYSTEM - An Air-tight or Airless Cleaning System that is operated and equipped pursuant to Section 304.3 of this rule.~~

228 ~~SOLVENT – For the purpose of this rule, any liquid or vapor which is used to dissolve, clean, strip, or remove impurities, coatings, contaminants, or films from surfaces or from internal spaces and voids. In addition to VOC-containing solvents, this also includes plain water and mixtures containing water.~~

~~229 SOLVENT CLEANING MACHINE (CLEANING MACHINE) (DEGREASER) - Any liquid container and ancillary equipment designed to clean surfaces and/or remove surface contaminants using cleaning solvents.~~

~~230 SOLVENT/AIR INTERFACE –~~

~~230.1 Non-Vapor Cleaner: The location of contact between the liquid solvent and the air.~~

~~230.2 Vapor Cleaner: The location of contact between the concentrated layer of solvent vapor and the air.~~

~~231 SOLVENT/AIR INTERFACE AREA –~~

~~231.1 Non-Vapor Cleaner:~~

~~a. With Included/Integral Reservoir: The surface area of liquid cleaning solvent that is exposed to the air.~~

~~b. With Remote Reservoir: The surface area of the solvent sink or work area.~~

~~231.2 Vapor Cleaner: The area of the horizontal plane that is located halfway between the highest and lowest points of the primary condenser coils and which contacts the interior walls of the cleaning machine.~~

~~232 TOTAL VOC VAPOR PRESSURE (VOC COMPOSITE PARTIAL PRESSURE) - Within a solution or homogenous mixture, it is the sum of the partial pressures of all those components that are defined as VOCs, calculated according to the formula in Section 502.3 of this rule.~~

~~233 VAPOR CLEANING MACHINE - Any cleaning machine in which solvent-vapor from boiling cleaning solvent is utilized for cleaning object.~~

~~234 VOC CONTENT OF MATERIAL (MATERIAL VOC CONTENT) -~~

~~VOC CONTENT OF MATERIAL as a percent =~~ $\frac{W_s - W_w - W_{es}}{W_m}$ ~~X 100%~~

~~Using consistently either pounds or grams in the calculations:~~

Where:

$W_s$ = weight of volatile material in pounds (or grams), including water, non-precursor organic compounds, and dissolved vapors.

$W_w$ = weight of water in pounds (or grams)

$W_{es}$ = total weight of non-precursor organic compounds in pounds (or grams)

$W_m$ = weight of total material in pounds (or grams)

VOC CONTENT OF MATERIAL in pounds per gallon (g/l) = $\frac{W_s - W_w - W_{es}}{V_m}$

Using consistently either English or metric measures in the calculations
Where:

$W_s$ = weight of all volatile material in pounds (or grams) including VOC, water, non-precursor organic compounds and dissolved vapors.

$W_w$ = weight of water in pounds (or grams)

$W_{es}$ = weight of all non-precursor compounds in pounds (or grams)

$V_m$ = volume of total material in gallons (or liters)

235 VOLATILE ORGANIC COMPOUND (VOC) - Any organic compound which participates in atmospheric photochemical reactions, except non-precursor organic compounds.

236 WIPE CLEANING - That method of removing contaminants from a surface by physically rubbing or automatically rubbing with a porous or absorbent material, such as a rag, paper, sponge, or cotton swab, moistened with a solvent.

SECTION 300 - STANDARDS

301 SOLVENT HANDLING REQUIREMENTS: Any person to whom this rule applies must comply with all of the following:

301.1 All cleaning solvent, including solvent soaked materials, shall be kept in closed, leakfree, impervious containers that are opened only when adding or removing material.

a. ~~Porous or absorbent materials used for wipe cleaning shall be stored in closed containers when not in use.~~

b. ~~Each container shall be clearly labeled with its contents.~~

301.2 ~~If any cleaning-solvent escapes from a container:~~

a. ~~Wipe up or otherwise remove immediately if in accessible areas.~~

b. ~~For areas where access is not feasible during normal production, remove as soon as reasonably possible.~~

301.3 ~~Unless records show that VOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.~~

302 ~~EQUIPMENT REQUIREMENTS FOR ALL CLEANING MACHINES: Any person operating a cleaning machine to which this rule applies must comply with all of the following:~~

302.1 ~~Provide a leakfree, impervious container (degreaser) for the solvents and the articles being cleaned.~~

a. ~~The VOC-containment portion shall be impervious to VOC-containing liquid and vapors.~~

b. ~~No surface of any freeboard required by this rule shall have an opening or duct through which VOC can escape to the atmosphere, except as controlled by an ECS, or as required by OSHA.~~

302.2 ~~Properly maintain and operate all cleaning machine equipment required by this rule and any of its emission controls required by this rule.~~

303 ~~SPECIFIC OPERATING & SIGNAGE REQUIREMENTS FOR CLEANING MACHINES: Any person who cleans with cleaning-solvent other than a Low-VOC Cleaner must conform to all of the following operating requirements:~~

303.1 ~~Operating Requirements:~~

a. ~~Fans: Do not locate nor position comfort fans in such a way as to direct airflow across the opening of any cleaning machine.~~

b. ~~Cover: Do not remove any device designed to cover the solvent unless processing work in the cleaning machine or maintaining the machine.~~

c. ~~Draining: Drain cleaned parts for at least 15 seconds after cleaning or until dripping ceases, whichever is later.~~

d. ~~Spraying: If using a cleaning-solvent spray system,~~

(1) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).

(2) Pressure at the orifice from which the solvent emerges shall not exceed 10 psig and shall not cause liquid solvent to splash outside of the solvent container.

(3) In an in-line cleaning machine, a shower-type spray is allowed, provided that the spraying is conducted in a totally confined space that is separated from the environment.

(4) Exceptions to foregoing Sections 303.1d(1), (2), and (3) are provided for in Section 307 of this rule.

e. Agitation: No person shall cause agitation of a cleaning-solvent in a cleaning machine by sparging with air or other gas. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds 15 seconds.

f. No Porous Material:

(1) Do not clean nor use porous or absorbent materials to clean parts or products in a cleaning machine. For the purpose of this rule, porous or absorbent materials include, but are not limited to, cloth, leather, wood, and rope.

(2) Do not place an object with a sealed wood handle, including a brush, in or on a cleaning machine.

(3) Do not place porous or absorbent materials, including, but not limited to, cloth, leather, wood, and rope on a cleaning machine.

g. Vent Rates: The ventilation rate at the cleaning machine shall not exceed 65 cfm per square foot of evaporative surface (20 m3/min./m2), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation, to meet health and safety requirements.

h. Hoist Speed: Limit the vertical speed of mechanical hoists moving parts in and out of the cleaning machine to a maximum of 2.2 inches per second and 11 ft/min. (3.3 m/min.).

i. Contamination Prevention: Prevent cross contamination of solvents regulated by Section 304 of this rule with solvents that are not so regulated. Use signs, separated work-areas, or other effective means for this purpose. This includes those spray gun cleaning solvents that are regulated by another rule of these rules.

j. Filtration Devices: If a filtration device (e.g., to remove oils, greases, sludge, and fine carbon from cleaning solvent) is inherent in the design of the cleaning

machine, then such filtration device shall be operated in accordance with manufacturer's specifications and in accordance with the following requirements:

(1) The filtration device shall be fully submerged in cleaning solvent at all times during filtration.

(2) When the filtration device is completely saturated and must be removed from the cleaning machine, the filtration device shall be drained until no liquid can flow from the filtration device. Draining and drying such filtration device shall be conducted in a sealed container with no exhaust to the atmosphere or work area.

(3) After the filtration device is dry, the filtration device shall be stored in a closed, leakfree, impervious container that is legibly labeled with its contents and that remains covered when not in use. Disposal of the filtration device shall be done in a manner that inhibits VOC evaporation and that is in compliance with appropriate/legal methods of disposal.

303.2 Signage Requirements: Any person who uses cleaning-solvent, other than Low-VOC Cleaner, in any solvent cleaning machine (degreaser) or dip tank shall provide on the machine, or within 3¼ feet (1 meter) of the machine, a permanent, conspicuous label or placard which includes, at a minimum, each of the following applicable instructions, or its equivalent:

a. "Keep cover closed when parts are not being handled." (This is not required for remote reservoir cleaners.)

b. "Drain parts until they can be removed without dripping."

c. "Do not blow off parts before they have stopped dripping."

d. "Wipe up spills and drips as soon as possible; store used spill rags [or 'wiping material'] in covered container."

e. "Don't leave cloth or any absorbent materials in or on this tank."

f. For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: "Operating instructions can be obtained from _____," listing a person or place where the instructions are available.

304 SOLVENT SPECIFICATIONS FOR NON-VAPOR CLEANING AND DEGREASING: [Operating requirements specifically for vapor cleaning machines are in the Appendix.] All cleaning solvents, except Low-VOC Cleaners, used in non-boiling cleaning machines shall comply with Section 304.1 or Section 304.2 or Section 304.3, as follows:

304.1 Use a cleaning-solvent having a total VOC vapor pressure at 68°F (20°C) not exceeding 1 millimeter of mercury column, as determined by the standards described in Section 500 of this rule.

304.2 ECS: Use an ECS to capture and process VOC emissions in accordance with Section IV of the Appendix within this rule; or

304.3 Sealed System: Use a Sealed System that is an Air-tight or Airless Cleaning System which is operated according to the manufacturer's specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:

a. Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle; and

b. Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use; and

c. Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out.

305 NON-VAPOR BATCH CLEANING MACHINES: Equipment requirements for non-vapor batch cleaning machines with remote reservoirs are set forth in Section 305.1 of this rule. Equipment standards applicable to non-vapor batch cleaning machines with internal reservoirs (non-remote) are set forth in Section 305.2 of this rule. Non-vapor batch cleaning machines with either remote or internal reservoirs that use cleaning-solvents that are either heated, agitated or non-conforming are subject to additional provisions set forth in Section 305.3 of this rule. Low-VOC Cleaners are exempt from this section.

305.1 With Remote Reservoir: A batch cleaning machine with remote reservoir, including cabinet type(s), shall be equipped with the following:

a. A sink-like work area or basin which is sloped sufficiently towards the drain so as to prevent pooling of cleaning-solvent.

b. A single, unimpeded drain opening or cluster of openings served by a single drain for the cleaning-solvent to flow from the sink into the enclosed reservoir. Such opening(s) shall be contained within a contiguous area not larger than 15.5 square inches (100 cm2).

c. Solvent Return: Provide a means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine.

305.2 With Internal Reservoir (Non-Remote): A batch cleaning machine without a remote reservoir shall be equipped with all of the following:

a. Have and use an internal drainage rack or other assembly that confines within the freeboard all cleaning-solvent dripping from parts and returns it to the hold of the cleaning machine (degreaser); and

b. Have an impervious cover which when closed prevents cleaning-solvent vapors in the cleaning machine from escaping into the air/atmosphere when not processing work in the cleaning machine.

(1) A cover shall be fitted so that in its closed position the cover is between the cleaning-solvent and any lip exhaust or other safety vent, except that such position of cover and venting may be altered by an operator for valid concerns of flammability established in writing and certified to by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.

(2) A cover is not required when an ECS is used in accordance with Section IV of the Appendix within this rule.

c. In the absence of additional applicable freeboard standards, freeboard height shall be not less than 6 inches (15.2 cm); and

d. The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level which conforms to the applicable freeboard requirements.

305.3 Using Cleaning-Solvent That Is Heated, Agitated, Or Is Non-Conforming: If a cleaning machine uses a cleaning-solvent at a temperature above 120°F (49°C), uses non-conforming solvent if allowed by Section 305.3(d) of this rule, or agitates the solvent, then comply with one of the following:

a. Remote Reservoir Cleaning Machines: For a remote reservoir cleaning machine, comply with Section 305.1 of this rule and one of the following:

(1) Use a stopper in the drain whenever the sink or cabinet is empty of solvent and nothing is being handled in the sink; or

(2) Cover the sink or cabinet whenever the sink or cabinet is empty of solvent and nothing is being handled in the sink.

b. Internal Reservoir Cleaning Machines: For an internal reservoir cleaning machine, comply with Section 305.2 of this rule and either Section (1) or (2) that follow:

(1) A Water Cover: A floating layer of water (insoluble in the solvent) at least 1 inch thick, and a freeboard at least 6 inches above the top of the solvent shall be present; or

(2) Freeboard And Cover:

(a) The basin shall have a freeboard ratio of 0.75 or greater and an impervious cover shall cover the basin whenever work is not being processed; and

(b) If a non-conforming solvent is used, the cover shall be of a sliding or rolling type which is designed to easily open and close in a horizontal plane without disturbing the vapor zone.

c. Cabinet Style: Keep a cabinet-style cleaning machine closed at all times that it contains cleaning-solvent, except when introducing or removing work from the machine. If blasting or misting with cleaning-solvent, also conform to the applicable requirements of Section 307 of this rule.

d. Non-Conforming Solvent: A non-conforming solvent may be used in operations to which this rule applies, if at least one of the following is met:

(1) The emissions from the operation shall be controlled by an ECS per Section 304.2 of this rule or by a Sealed System per Section 304.3 of this rule; or

(2) The operation is exempted per Section 308.2 of this rule; or

(3) The operation is both exempted per Section 308.3 of this rule and complies with Section 305.3 of this rule, or for in-line machines, complies with all of Section 306 of this rule except Section 306.4 of this rule.

305.4 ECS Alternative: An owner and/or operator is allowed to meet the requirements of any one or combination of the requirements of Sections 305.1, 305.2 and/or 305.3 of this rule by operating an ECS in accordance with Section IV of the Appendix within this rule whenever any requirement of Sections 305.1, 305.2 and/or 305.3 of this rule is not met.

306 NON-VAPOR IN-LINE CLEANING MACHINES: No person shall operate a non-vapor in-line cleaning machine using cleaning-solvent unless it complies with Sections 306.1, 306.2, and 306.3 of this rule:

306.1 Features:

a. Carry-Out Prevention: Equip the cleaning machine with either a drying tunnel or another means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out cleaning-solvent liquid or vapor.

b. Enclosed Design: An in-line cleaning machine shall be fully enclosed except for entrance and exit portals.

c. Cover: During shutdown hours or if the cleaning machine is idle for more than 30 minutes, a cover shall be used to close the entrance and exit and any opening greater than 16 square inches (104 cm2).

306.2 Minimized Openings: Entrances and exits should silhouette workloads so that the average clearance between parts and the edge of the cleaning machine opening is either less than four inches (10 cm), or less than 10% of the width of the opening.

306.3 The machine shall have a freeboard ratio greater than or equal to 0.75.

306.4 ECS Alternative: An owner and/or operator is allowed to meet the requirements of any one or combination of Sections 306.1(b), 306.1(c), 306.2, and/or 306.3 of this rule by operating an ECS that controls VOC vapor from processes addressed by the

~~requirement(s). Such ECS shall be operated in accordance with Section IV of the Appendix within this rule.~~

~~307 SPECIAL NON-VAPOR CLEANING SITUATIONS:~~

~~307.1 Blasting/Misting With Conforming Solvent: Any person blasting or misting with conforming solvent shall operate and equip the device(s) as follows:~~

~~a. Equipment: The device shall have internal drainage, a reservoir or sump, and a completely enclosed cleaning chamber, designed so as to prevent any perceptible liquid from emerging from the device; and~~

~~b. Operation: The device shall be operated such that there is no perceptible leakage from the device except for incidental drops from drained, removed parts.~~

~~307.2 Blasting/Misting With Non-Conforming Solvent: Any person shall use a Sealed System pursuant to Section 304.3 of this rule for all blasting or misting with a non-conforming solvent.~~

~~307.3 High Pressure Flushing: Cleaning systems using cleaning-solvent that emerges from an object undergoing flushing with a visible mist or at a pressure exceeding 10 psig, shall comply as follows:~~

~~a. Conforming Solvent: For conforming solvent, use a containment system that is designed to prevent any perceptible cleaning-solvent liquid from becoming airborne outside the containment system, such as a completely enclosed chamber.~~

~~b. Non-Conforming Solvent: Use a Sealed System for non-conforming solvent.~~

~~307.4 ECS Alternative: An owner and/or operator is allowed to meet the requirement(s) of Section 307.1 and/or Section 307.2 of this rule by operating an ECS that controls VOC vapor from processes addressed by the requirement(s). The ECS shall be operated pursuant to Section IV of the Appendix within this rule.~~

~~308 EXEMPTIONS:~~

~~308.1 Categorical Exemptions:~~

~~a. Industries and cleaning operations that are not regulated by this rule include, but are not limited to, the following EPA-approved versions of the VOC rules in Regulation III of these rules:~~

~~(1) Dry cleaning with petroleum solvents (Rule 333);~~

~~(2) Printing and graphic arts coating (Rule 337);~~

~~(3) Semiconductor manufacturing (Rule 338);~~

(4) Automotive windshield washer fluid (Rule 344); and

(5) Architectural Coating (Rule 335).

b. All operations regulated by the following NESHAPs are exempt from Rule 331:

(1) National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, subpart T). This includes the de minimis amounts of solvent VOCs that are exempted by subpart T.

(2) National Emission Standards for Perchloroethylene for Dry Cleaning Facilities, (40 CFR 63, subpart M).

c. Exemptions For Qualified Operations:

(1) Cleanup Of Coating-Application Equipment: Operations involving the cleanup of coating-application equipment that are subject to or specifically exempted by an EPA approved version of another rule in Regulation III of these rules are exempt from Rule 331. Examples include Rule 336 (Surface Coating Operations), Rule 342 (Coating Wood Furniture And Fixtures), and Rule 346 (Wood Coating).

(2) Aerospace: Wipe cleaning of aerospace components is subject to Rule 348 of these rules, whereas the cleaning of aerospace components in a dip tank or a cleaning machine is subject to Rule 331.

308.2 Partial Exemption From Section 300: The following are exempt from sections of Section 300 of this rule as noted:

a. Wipe Cleaning: The provisions of Sections 302 through 307 of this rule do not apply to wipe cleaning. Recordkeeping provisions in Section 500 of this rule do apply to wipe cleaning.

b. Small Cleaners: The provisions of Sections 303 through 307 of this rule shall not apply to any non-vapor cleaning machine (degreaser) or dip-tank fitting either of the following descriptions, except that these shall be covered when work is not being processed:

(1) A small cleaner having a liquid surface area of 1 square foot (0.09 square meters) or less, or

(2) A small cleaner having a maximum capacity of one gallon (3.79 liters) or less.

308.3 Exemptions From Section 304: The U.S. Government Printing Office "Standard Industrial Classification Manual, 1987" (and no future editions) is incorporated by reference and is on file at Maricopa County Environmental Services Department, 1001 N. Central Avenue, Suite 201, Phoenix, Arizona 85004-1942. The following are exempt from Section 304 of this rule:

a. Non-furniture medical devices included in Standard Industrial Classification (SIC) codes 3841, 3843, 3844, or 3845, and products for internal use in 3842;

b. Electronic products for space vehicles and communications equipment in SIC codes 3661, 3663, 3669, 3677, 3678, 3679, and 3769; and

c. Production processes having clean-room standards equal to or more stringent than class 100,000 (particles/m3); and

d. Low viscosity solvent used to clean an aerospace component if the Federal Aviation Authority, the US Department of Defense, or a US Military specification designates that the cleanliness of the component is critical to the flight safety of a complete aerospace vehicle. By January 1, 2001, any such solvents shall be listed in an MCESD air pollution permit, conditioned upon a sufficient demonstration by the user that no compliant substitute exists.

308.4 Comfort Fans: The Section 303.1(a) prohibition against fans and fan-drafts being close to cleaning machines does not apply to a totally enclosed cleaning machine that cannot be penetrated by drafts.

308.5 Vehicle Refinishing: Dip cleaning of vehicle or mobile equipment surfaces is subject to this rule.

308.6 Aerosol cans, squirt bottles, and other solvent containers intended for handheld use shall meet the requirements in Sections 301 and 500 of this rule.

308.7 A Low-VOC Cleaner is subject only to Sections 301, 302, 307.1, 501.1(a), and 501.2 of this rule.

309 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT: For the purpose of this rule, an ECS shall be approved in writing by the Control Officer and shall be designed and operated in accordance with good engineering practices.

309.1 Operation And Maintenance (O&M) Plan Required For ECS:

a. General Requirements: An owner and/or operator shall provide and maintain (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or pursuant to an air pollution control permit. An owner and/or operator shall comply with all the identified actions and schedules provided in each O&M Plan.

b. Approval By Control Officer Of Initial O&M Plan(s): An owner and/or operator shall submit to the Control Officer for written approval the O&M Plan(s) of each ECS and each ECS monitoring device that is used pursuant to this rule. While the Control Officer is reviewing for approval the O&M Plan(s), an owner and/or operator shall comply with all the identified actions and schedules provided in each O&M Plan submitted for approval, unless notified otherwise by the Control Officer. After the Control Officer has issued written

approval of the O&M Plan(s), an owner and/or operator shall continue to comply with all the identified actions and schedules provided in each O&M Plan.

c. Owner And/Or Operator Revisions To Initial O&M Plan(s): If an owner and/or operator submits to the Control Officer revisions to the initial O&M Plan(s) and if such revisions have been approved in writing by the Control Officer, an owner and/or operator shall comply with the revisions to the initial O&M Plan(s).

d. Control Officer Modifications To Initial O&M Plan(s): After discussion with the owner and/or operator, the Control Officer may modify the O&M Plan(s) in writing prior to approval of the initial O&M Plan(s). An owner and/or operator shall then comply with the O&M Plan(s) that has been modified by the Control Officer.

309.2 Providing And Maintaining ECS Monitoring Devices: An owner and/or operator incinerating, adsorbing, or otherwise processing VOC emissions pursuant to this rule shall provide, properly install and maintain in calibration, in good working order and in operation, devices described in the facility's O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any person subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.

501.1 Current List:

a. Maintain a current list of cleaning-solvents; state the VOC-content of each in pounds VOC per gallon of material or grams per liter of material.

b. A facility using any cleaning-solvent subject to the vapor-pressure limits of Section 304.1 of this rule shall have on site the written value of the total VOC vapor-pressure of each such solvent, in one of the following forms:

(1) A manufacturer's technical data sheet,

(2) A manufacturer's safety data sheet (MSDS), or

(3) Actual test results.

501.2 Usage Records:

a. Monthly: Records of the amount of cleaning-solvent used shall be updated by the end of month for the previous month. Show the type and amount of each make-up and all other cleaning-solvent to which this rule is applicable.

b. Annually:

(1) Certain Concentrates: Use of concentrate that is used only in the formulation of Low-VOC Cleaner shall be updated at least annually.

(2) Low-VOC Cleaner: An owner and/or operator need not keep a record of a cleaning substance that is made by diluting a concentrate with water or non-precursor compound(s) to a level that qualifies as a Low-VOC Cleaner if records of the concentrate usage are kept in accordance with this rule.

c. Grouping By VOC Content: For purposes of recording usage, an operator may give cleaning-solvents of similar VOC content a single group-name, distinct from any product names in the group. The total usage of all the products in that group is then recorded under just one name. (In such a case, the operator must also keep a separate list that identifies the product names of the particular solvents included under the group name). To the group name shall be assigned the highest VOC content among the members of that group, rounded to the nearest 10th of a pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.

502 COMPLIANCE DETERMINATION AND TEST METHODS: When more than one test method is permitted for a determination, an exceedance of the limits established in the rule determined by any of the applicable test methods constitutes a violation of this rule.

502.1 Compliance Determination: The following means shall be used to determine compliance with this rule. For routine information collection, the Control Officer may accept a manufacturers' data sheet, data certified by an officer of the supplying company, or test data for the product model of inquiry.

a. VOC Content: The VOC content of solutions, dispersions, emulsions, and conforming solvents (reference Section 207 of this rule) shall be determined by one of the following methods:

(1) South Coast Air Quality Management District Method 313-91 as referenced in Section 502.2(f) of this rule; or

(2) Bay Area Air Quality Management District Method 31 as referenced in Section 502.2(e) of this rule; or

(3) Solids-free windshield washer solutions, in which all organic components are VOCs, may be tested using Maricopa County Reference Method #100, "Total Organic Carbon for Windshield Washer Fluids," Maricopa County Air Pollution Control Rule 344 (April 7, 1999). This method should only be used for water-based solutions containing less than 5% VOC by weight.

b. Vapor Pressure: Pursuant to Sections 304 and 207 of this rule, determination of the total VOC vapor-pressure (VOC composite partial-pressure) in a cleaning solution shall be performed as follows:

(1) For solutions known to be nearly or exactly 100% VOC, vapor pressure shall be determined by ASTM D2879-96 as referenced in Section 502.2(g) of this rule; or

(2) For solutions for which is known the exact quantity and chemical makeup of each evaporating component that is not a VOC, ASTM D2879-96 (referencing Section 502.2(g) of this rule) shall be used (to determine the gross composite vapor pressure) in conjunction with calculations using the vapor-pressure formula in Section 502.3 of this rule.

(3) When a solution's exact species and proportions are known for all ingredients, the Control Officer may use the formula in Section 502.3 of this rule in conjunction with standard reference texts or data-bases that provide the vapor pressure value of each constituent, or a combination of formula use and actual testing on real constituents (referencing Section 502.2(g) of this rule).

c. ECS Compliance:

(1) The VOC content of gaseous emissions entering and exiting an ECS shall be determined by either EPA Method 18 referred to in Section 502.2(b) of this rule, or EPA Methods 25, 25a, and 25b referred to in Section 502.2(c) of this rule.

(2) Capture efficiency of an emission control device used pursuant to Section 304.2, Section 305.4, Section 306.4, and/or Section 307.4 of this rule shall be determined either by the methods in Section 502.2(d) of this rule (EPA Methods 204, 204a, 204b, 204c, 204d, 204e, and 204f) or by using mass balance calculation methods in concert with the methods in Section 502.2(a) of this rule (EPA Methods 2, 2a, 2c, and 2d), and EPA guidance document, "Guidelines For Determining Capture Efficiency", January 9, 1995.

d. Temperature Measurement: Temperature measurements made pursuant to Section 214 of this rule to determine if a cleaning machine contains a "heated solvent" shall be done with an instrument having an accuracy and precision of no less than 1 degree Fahrenheit.

502.2 Test Methods Adopted By Reference: The EPA test methods as they exist in the Code of Federal Regulations (CFR) (July 1, 2003), as listed below, are adopted by reference. The other test methods listed here are also adopted by reference, each having paired with it a specific date that identifies the particular version/revision of the method that is adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in this Section

~~502 are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.~~

a. ~~EPA Methods 2 ("Determination of Stack Gas Velocity and Volumetric Flow Rate"), 2a ("Direct Measurement of Gas Volume Through Pipes and Small Ducts"), 2c ("Determination of Stack Gas Velocity and Volumetric Flow rate in Small Stacks or Ducts"), and 2d ("Measurement of Gas volumetric Flow Rates in Small Pipes and Ducts"). All 4 of the foregoing methods are in 40 CFR 60, Appendix A.~~

b. ~~EPA Method 18 ("Measurement of Gaseous Organic Compound Emissions by Gas Chromatography") (40 CFR 60, Appendix A).~~

c. ~~EPA Methods 25 ("Determination of Total Gaseous Nonmethane Organic Emissions as Carbon"), 25a, and 25b (40 CFR 60, Appendix A).~~

d. ~~EPA Test Methods 204 ("Criteria For and Verification Of a Permanent or Temporary Total Enclosure"), 204a, 204b, 204c, 204d, 204e, and 204f (40 CFR 51, Appendix M) and EPA guidance document, "Guidelines For Determining Capture Efficiency", January 9, 1995.~~

e. ~~California's Bay Area Air Quality Management District (BAAQMD) Method 31 (April 15, 1992), "Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings."~~

f. ~~California's South Coast Air Quality Management District (SCAQMD) Method 313-91 (April 1997).~~

g. ~~American Society for Testing and Materials (ASTM) Method D2879-96 (1996).~~

h. ~~EPA guidance document, "Guidelines For Determining Capture Efficiency", January 9, 1995.~~

~~502.3 FORMULA FOR VOC COMPOSITE PARTIAL PRESSURE: Equivalent to: TOTAL VOC VAPOR PRESSURE.~~

$$PP_c = \frac{\sum_{i=1}^{n} (W_i)(VP_i)/M_i}{\frac{W_w}{18} + \sum_{j=1}^{m} \frac{W_e}{M_e} + \sum_{i=1}^{n} \frac{W_i}{M_i}}$$

$W_i$ = Weight of the "i"th VOC compound in grams

$W_w$ = Weight of water in grams

$We$ = Weight of the "j"th non-precursor compound in grams

$M_i$ = Molecular weight of the "i"th VOC compound in grams per gram mole, e.g., one gram-mole of isopropyl alcohol weighs 60 grams

$M_e$ = Molecular weight of the "j"th non-precursor compound, e.g., 1 gram-mole of acetone weighs 58 grams

$PP_c$ = VOC composite partial pressure at 20°C in mm mercury (Hg)

$VP_i$ = Vapor pressure of the "i"th VOC compound at 20°C in mm Hg

18 = Weight of one gram-mole of water

## APPENDIX TO RULE 331
## VAPOR CLEANING MACHINES and EMISSION CONTROL SYSTEMS

I. DEFINITIONS:

(1) VAPOR LEVEL CONTROL SYSTEM – A combination of a coolant sensing system and a vapor sensing system consisting of the following three sets of features:

(A) A condenser flow switch and thermostat which shuts off the sump heat if either the condenser coolant stops circulating or becomes warmer than 85°F (29°C); and

(B) A manually-reset safety switch which turns off the sump heater if the temperature sensor senses that the temperature is rising above the designed operating level at the vapor/air interface; and

(C) A manually-reset switch which turns off the spray-system pump if the level of the vapor/air interface drops more than 4 inches (10 cm).

II. BATCH-LOADED VAPOR CLEANING MACHINES:

(1) No person shall operate a batch vapor cleaning machine, unless the machine meets National Emission Standards for Halogenated Solvent Cleaning (subpart T, Rule 370), as if the cleaning solvent in use were subject to subpart T standards.

(2) No person shall operate a batch vapor cleaning machine, unless the machine has a vapor/air interface Fahrenheit temperature no greater than 30% of the solvent's boiling point temperature or no greater than 40.0°F (4.4°C), whichever is lower.

(3) Sections II(1) and II(2) of this Appendix shall not apply, if a batch vapor cleaning machine is equipped with all of the following:

(A) Cover: An impermeable cover that is a sliding, rolling, fanning, or guillotine (bi-parting) type which is designed to easily open and close without disturbing the vapor zone.

(B) A Vapor Level Control System.

(C) Primary Condenser: A primary condenser that maintains an exit temperature not exceeding 85°F (29°C) or is equipped pursuant to Section II(3)(F)(ii) of this Appendix.

(D) Freeboard Ratio: A freeboard ratio that is greater than or equal to 0.75.

(E) Lip Exhausts: Vapor cleaning machines with lip exhausts shall be controlled by an ECS.

(F) Refrigeration Or ECS: Batch vapor cleaning machines having any of the following descriptors shall comply with Sections II(3)(F)(i), II(3)(F)(ii), or II(3)(f)(iii) of this Appendix:

- an evaporative surface area equal to or greater than 10.75 $ft^2$ (1.0 $m^2$); or
- installed or subject to major modification after November 1, 1999; or
- having average monthly VOC emissions exceeding 31 pounds VOC per square foot of solvent surface area:

(i) A refrigerated freeboard chiller for which the chilled air blanket temperature in degrees Fahrenheit at the coldest point on the vertical axis through the horizontal center of the vapor/air interface either shall be no greater than 30% of the initial boiling point of the solvent in degrees Fahrenheit or no greater than 40.0°F (4.4°C); or

(ii) A refrigerated condenser coil (in place of an unrefrigerated coil) having a minimum cooling capacity of 100% of the boiling-sump heat input rate and conforming to the air blanket temperature requirements pursuant to Section II(3)(F)(i); or

(iii) An ECS operated in accordance with Section IV of this Appendix.

(G) Water Separator: Water should not be visually detectable in the VOC containing solvent exiting the water separator.

(4) Sections II(1) and II(2) of this Appendix shall not apply, if a batch vapor cleaning machine meets all of the following:

(A) Workloads:

(i) A workload shall not occupy more than half of the cleaning machine's open-top area.

(ii) The workload shall not be so massive that the vapor level drops more than 4 inches (10 cm), when the workload is removed from the vapor zone.

(iii) The workload shall not be sprayed with cleaning-solvent above the vapor/air interface level.

(B) Carry-Out: Minimize cleaning-solvent carry-out by the following measures:

(i) Orient the items being cleaned in such a way that the items drain easily after cleaning.

(ii) Degrease the workload in the vapor zone at least 30 seconds or until condensation ceases.

(iii) For manual loading/unloading, tip out any pools of solvent on the cleaned parts before removal.

(iv) Allow parts to dry within the batch vapor cleaning machine until visually dry.

(C) Startup And Shutdown: The following sequence shall be used for startup and shutdown:

(i) When starting the batch vapor cleaning machine, the cooling system shall be turned on before, or simultaneously with, the sump heater.

(ii) When shutting down the batch vapor cleaning machine, the sump heater shall be turned off before, or simultaneously with, the cooling system.

(D) Blasting: Blasting in a batch vapor cleaning machine shall be done within a Sealed System or be controlled by an ECS.

(E) Records: An owner and/or operator operating a batch vapor cleaning machine shall keep records pursuant to Section 501 of this rule.

III. IN-LINE VAPOR CLEANING MACHINES:

(1) No person shall operate an in-line vapor cleaning machine, unless the machine meets National Emission Standards for Halogenated Solvent Cleaning (subpart T, Rule 370), as if the cleaning-solvent in use were subject to subpart T standards.

(2) No person shall operate an in-line vapor cleaning machine, unless the machine has a vapor/air interface Fahrenheit temperature no greater than 30% of the solvent's boiling point temperature or no greater than 40.0°F (4.4°C), whichever is lower.

(3) Sections III(1) and III(2) of this Appendix shall not apply, if an in-line vapor cleaning machine is equipped with all of the following:

(A) Cover: Within 10 minutes of turning off the solvent heating system, cover the entrance and exit and any opening greater than 16 square inches (104 cm2).

(B) Vapor Level Control System.

(C) Primary Condenser: Have a primary condenser that maintains an exit temperature not exceeding 85°F (29°C).

(D) Freeboard Ratio: Have a freeboard ratio greater than or equal to 0.75.

(E) Refrigeration Or ECS: In-line vapor cleaning machines having any of the following descriptors shall comply with Sections III(3)(E)(i), III(3)(E)(ii), or III(3)(E)(iii) of this Appendix:

- an evaporative surface area equal to or greater than 10.75 $ft^2$ (1.0 $m^2$); or
- installed or subject to major modification after November 1, 1999, or
- having average monthly VOC emissions exceeding 31 pounds VOC per square foot of solvent surface area:

(i) A refrigerated freeboard chiller for which the chilled air blanket temperature in degrees Fahrenheit at the coldest point on the vertical axis through the horizontal center of the vapor/air interface either shall be no greater than 30% of the initial boiling point of the solvent in degrees Fahrenheit or no greater than 40.0°F (4.4°C); or

(ii) A refrigerated condenser coil (in place of an unrefrigerated coil) having a minimum cooling capacity of 100% of the boiling-sump heat input rate and conforming to the air blanket temperature requirements pursuant to Section III(3)(E)(i) of this Appendix; or

(iii) An ECS operated in accordance with Section IV of this Appendix.

(F) Water Separator: Water should not be visually detectable in the VOC-containing solvent exiting the water separator.

(4) Sections III(1) and III(2) of this Appendix shall not apply, if the in-line vapor cleaning machine meets all of the following:

(A) Workloads: Entrances and exits should silhouette workloads so that the average clearance between parts and the edge of the in-line vapor cleaning machine

opening is either less than 4 inches (10 cm) or less than 10% of the width of the opening.

(B) Carry-Out: Equip the in-line vapor cleaning machine with either a drying tunnel or another means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out cleaning-solvent liquid or vapor.

(C) Startup And Shutdown: The following sequences shall be used for startup and shutdown:

(i) When starting the in-line vapor cleaning machine, the cooling system shall be turned on before, or simultaneously with, the sump heater.

(ii) When shutting down the in-line vapor cleaning machine, the sump heater shall be turned off before, or simultaneously with, the cooling system.

(D) Records: An owner and/or operator operating an in-line vapor cleaning machine shall keep records pursuant to Section 501 of this rule.

IV. EMISSION CONTROL SYSTEM REQUIREMENTS:

(1) An Emission Control System (ECS) used pursuant to this rule shall consist of a hood or enclosure to collect emissions, which are vented to a processing device. The overall control efficiency (capture plus processing) of the system shall not be less than 85%. The capture system shall have a ventilation rate no greater than 65 cfm per square foot of evaporative surface (20 m3/min./m2), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation-system design, that concerns health and safety requirements. The ECS shall be approved by the Control Officer.

(2) Operation And Maintenance (O&M) Plan Required For ECS: An owner and/or operator shall create and maintain an O&M Plan for any ECS required by this rule or pursuant to an air pollution control permit in accordance with Section 309 of this rule.

(3) Recordkeeping:

(A) ECS Operation And Maintenance Records: On each day that an ECS is used to comply with any provision of this rule, an owner and/or operator shall make a permanent record of the operating parameters of the key systems described in the O&M Plan. For each day or period in which the O&M Plan requires that maintenance be performed, a permanent record shall be made of the maintenance actions taken, within 24 hours of maintenance completion. An explanation shall be entered for scheduled maintenance that is not performed during the period designated in the O&M Plan.

(B) Other Records Required When Complying Via ECS: An owner and/or operator using an ECS pursuant to this rule shall maintain, in addition to the records

~~required by Section 501.1 of this rule, daily documentation showing the VOC content of the solvent material and the amount added for makeup.~~

~~(4)~~ ~~Test Methods For Determining Emission Control System Compliance: Test methods and compliance procedures for an ECS are in Section 502 of this rule.~~

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 331 (Solvent Cleaning), as revised and adopted April 21, 2004)**

## SIP RULE 333: PETROLEUM SOLVENT DRY CLEANING

REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 333
PETROLEUM SOLVENT DRY CLEANING
INDEX



Revised 07/13/88
Revised 06/22/92
Revised 06/19/96

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 333
PETROLEUM SOLVENT DRY CLEANING

### SECTION 100 - GENERAL

101 PURPOSE: To limit the emissions of volatile organic compounds from petroleum solvents used in dry cleaning.

102 APPLICABILITY: This rule applies to petroleum solvent washers, dryers, solvent filters, settling tanks, vacuum stills, and other containers and conveyors of petroleum solvent that are used in petroleum solvent dry cleaning facilities.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 CARTRIDGE FILTER - Any perforated canister containing filtration paper, fabric and/or activated carbon that is used in a pressurized system to remove solid particles and fugitive dyes from soil-laden solvent.

202 CONTAINERS AND CONVEYORS OF SOLVENT - Any piping, ductwork, pumps, storage tanks, and other ancillary equipment that are associated with the installation and operation of washers, dryers, filters, stills and settling tanks.

203 DRY CLEANING - A process for the cleaning of textiles and fabric products in which articles are washed in nonaqueous solvent and then dried by exposure to a heated air stream.

204 PERCEPTIBLE LEAKS - Any petroleum solvent vapor, mist, or liquid leaks that are conspicuous from visual observation, such as pools or droplets of liquid, or buckets or barrels of solvent or solvent-laden waste standing open to the atmosphere.

205 PETROLEUM SOLVENT - Volatile organic compounds commonly produced by petroleum distillation, primarily comprising a hydrocarbon range of 8 to 12 carbon atoms per organic molecule.

206 SOLVENT RECOVERY DRYER - A class of dry cleaning dryers that employs a condenser to liquefy and recover solvent vapors evaporating in a closed-loop, recirculating stream of heated air.

207 VOLATILE ORGANIC COMPOUND (VOC) - Any organic compound, excluding the following organic compounds which have been designated by the EPA as having negligible photochemical reactivity: methane; ethane; methylene chloride (dichloromethane); 1,1,1-trichloroethane; trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); chlorodifluoromethane (CFC-22); 1,1,2-trichlorotrifluoroethane (CFC-113); 1,2-dichlorotetrafluoroethane (CFC-114); chloropentafluoroethane (CFC-115); trifluoromethane (FC-23); 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123); 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124); 1,1-dichloro-1-fluoroethane (HCFC-141b); 1-chloro-1,1-difluoroethane (HCFC-142b); pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane (HFC-134); 1,1,1,2-tetrafluoroethane (HFC-134a); 1,1,1-trifluoroethane (HFC-143a); 1,1-difluoroethane (HFC-152a); all completely fluorinated, completely saturated: alkanes, ethers and tertiary amines.

SECTION 300 - STANDARDS

301 OPERATING REQUIREMENTS - A person shall not operate any petroleum solvent dry cleaning facility unless all of the following requirements are satisfied:

301.1 Liquid and Vapor Leaks: Dry cleaning equipment shall not be operated with perceptible leaks from any portion of the equipment, including but not limited to: hose connections, unions, couplings and valves; machine door gaskets and seating; filter head gaskets and seating; pumps; base tanks and storage containers; water

separators; filter sludge recovery; distillation units; divertor valves; solvent-moistened lint from lint basket; and cartridge filters.

301.2 Solvent Storage: Solvents shall be stored in closed containers.

301.3 Access Vents: All washer and dryer traps, access doors, and any other parts of equipment where solvent may be exposed to the atmosphere, shall be kept closed at all times except when required for proper operation or maintenance.

301.4 Solvent Filtration: Any petroleum filtration system shall be installed and operated to comply with at least one of the following:

a. Reduce the volatile organic compounds in all filtration wastes to 2.2 lbs (1 kg) or less per 220 lbs (100 kg) dry weight of articles cleaned, before disposal, and exposure to the atmosphere; or

b. Install and operate a cartridge filtration system, and drain the filter cartridges in their sealed housings for eight hours or more before their removal; or

c. Place all discarded filtration material, including cartridges and particulate filter media, immediately in sealed containers and dispose of according to hazardous waste statutes.

302 CONTROLS REQUIRED - SOLVENT RECOVERY DRYER: Petroleum solvent dry cleaning facilities installed after July 13, 1988, shall have a solvent recovery that recovers at least 85 percent of petroleum solvent by weight. In addition, the recovery cycle for the dryer shall not be terminated until the petroleum solvent flow rate from the water separator is 15 milliliters or less per minute.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any person subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.

501.1 Current List: Maintain a current list of solvents and any other VOC-containing materials; state the VOC content of each in pounds per gallons or grams per liter.

501.2 Usage Records and Amount of Clothes Cleaned: Maintain monthly records of the weight of clothing cleaned, the amount of solvent used, and the weight and type of any material disposed of which contains any quantity of cleaning solvent. The name of the company receiving such material shall also be recorded.

502 COMPLIANCE DETERMINATION - TEST METHODS: When more than one test method is permitted for a determination, an exceedance of the limits established in the rule determined by any of the applicable test methods constitutes a violation of this rule.

502.1 Measurements of petroleum-based VOC emissions pursuant to provisions of this rule shall be conducted in accordance with EPA Test Method 25 or its applicable

~~submethod(s) (40 CFR 60, Appendix A). Alternatively, a person may meet the efficiency (85 percent) requirement of Section 302 if 6.6 lbs (3 kg) or less of petroleum solvent is emitted per 220 lbs (100 kg) dry weight of articles cleaned, subject to prior approval of the test protocol by the Control Officer.~~

~~502.2~~ ~~Measurements of VOC content of solvents, waste, recovered or recycled material shall be conducted and reported in accordance with ASTM Standard Recommended Practices for General Gas Chromatography Procedures, E 260-85 or ASTM General Techniques For Infrared Quantitative Analysis, E 160A-67 or ASTM General Techniques of Ultraviolet Quantitative Analysis, ASTM E 169-63; as approved by the Control Officer.~~

~~502.3~~ ~~Efficiency of the control device shall be determined according to EPA Method 18.~~

~~502.4~~ ~~Ventilation/draft rate shall be determined by EPA Methods 2, 2A, 2C and 2D.~~

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 333 (Petroleum Solvent Dry Cleaning), as revised and adopted June 19, 1996)**

## SIP RULE 335: ARCHITECTURAL COATINGS

~~REGULATION III CONTROL OF AIR CONTAMINANTS~~
~~RULE 335~~
~~ARCHITECTURAL COATINGS~~
~~INDEX~~

237 SPECIALTY FLAT PRODUCTS
238 SPECIALTY PRIMERS, SEALERS, AND UNDERCOATERS
239 SWIMMING POOL COATINGS
240 TILE LIKE GLAZE COATINGS
241 TRAFFIC COATINGS
242 UNIQUE VEHICLES
243 URETHANE POLYMERS
244 VARNISHES
245 VINYL CHLORIDE POLYMERS
246 VOLATILE ORGANIC COMPOUND (VOC)
247 WATERPROOF MASTIC COATINGS
248 WATERPROOF SEALERS

SECTION 300 STANDARDS
301 PROHIBITION BITUMINOUS PAVEMENT SEALERS
302 INTERIM LIMITS NON FLAT ARCHITECTURAL COATINGS
303 FINAL LIMITS NON FLAT ARCHITECTURAL COATINGS
304 LIMITS FLAT ARCHITECTURAL COATINGS
305 LIMITS SPECIALTY COATINGS
306 EXEMPTIONS SPECIFIC USE COATINGS
307 EXEMPTIONS SMALL CONTAINERS

SECTION 400-ADMINISTRATIVE REQUIREMENTS
401 LABELING REQUIRED
402 MANUFACTURE DATE REQUIRED

SECTION 500-MONITORING AND RECORDS
501 DETERMINATION OF COMPLIANCE

Adopted 07/13/88

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III-CONTROL OF AIR CONTAMINANTS
RULE 335
ARCHITECTURAL COATINGS

SECTION 100-GENERAL

101 PURPOSE: To limit the emission of volatile organic compounds from architectural coatings.

102 APPLICABILITY OF MULTIPLE STANDARDS: In any instance where more than one of the standards set forth in this rule may be applicable, the most restrictive standard shall apply.

SECTION 200-DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 ~~ACRYLIC POLYMERS-Polymers resulting from the polymerization of derivatives of acrylic acids, including esters of acrylic acids, methacrylic acid, acrylonitrile, and their copolymers. Also known as acrylic resins and acrylate resins.~~

202 ~~ALKYDS-Synthetic resins formed by the condensation of polyhydric alcohols with polybasic acids.~~

203 ~~ARCHITECTURAL COATING-Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements or to curbs.~~

204 ~~BELOW GROUND WOOD PRESERVATIVES-Heavy duty coatings formulated solely for the purpose of protecting below ground wood from decay or insect attack and which contain a wood preservative.~~

205 ~~BITUMINOUS COATING MATERIALS-Black or brownish materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude petroleum oils or of low grades of coal.~~

206 ~~BOND BREAKERS-Coatings whose sole purpose, when applied between layers of concrete, is to prevent the freshly poured top layer of concrete from bonding to the substrate on which it is poured.~~

207 ~~CATALYZED EPOXY-Crosslinking resins made by the reaction of epoxides with other material such as amines, alcohols, phenols, carboxylic acids and unsaturated compounds.~~

208 ~~CONCRETE CURING COMPOUNDS-Coatings whose sole purpose is to retard the evaporation of water from the surface of freshly cast concrete, thereby strengthening it.~~

209 ~~CHLORINATED RUBBER-Resin formed by the reaction of rubber with chlorine.~~

210 ~~DRY FOG COATINGS-Coatings which are formulated so that when sprayed, overspray droplets dry before falling on floors and other surfaces.~~

211 ~~ENAMEL UNDERCOATERS-Coatings which are designed to be applied to a new surface over a primer or over a previous coat of paint, in order to improve the seal, provide better adhesion and make a smooth base for non flat coatings.~~

212 ~~FIRE RETARDANT COATINGS-Coatings which are designed to retard fires and which will significantly:~~

~~212.1 Reduce the rate of flame spread on the surface of a material to which such a coating has been applied; or~~

~~212.2 Resist ignition when exposed to high temperature; or~~

~~212.3 Insulate a substrate to which such a coating has been applied and prolong the time required for the substrate to reach ignition temperature.~~

~~213 FLAT COATINGS-Coatings which register gloss less than 15 on an 85° meter or less than 5 on a 60° meter, or which is labeled as a flat coating.~~

~~214 GENERAL PRIMERS-Coatings which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats.~~

~~215 GENERAL SEALERS-Coatings which are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.~~

~~216 GENERAL UNDERCOATERS-Coating which are designed to provide a smooth surface for subsequent coats.~~

~~217 GRAPHIC ARTS COATINGS (SIGN PAINTS)-Coatings which are marketed solely for application to indoor and outdoor signs and include lettering enamels, poster colors and bulletin colors.~~

~~218 INDUSTRIAL MAINTENANCE PRIMERS-Coatings which are intended to be applied to a surface prior to the application of an industrial maintenance topcoat, to provide a firm bond between the substrate and subsequent coats.~~

~~219 INDUSTRIAL MAINTENANCE TOPCOATS-High performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical or solvent resistance.~~

~~220 INORGANIC POLYMERS-Substances whose principle structural features are made of homopolar interlinkages between multivalent elements other than carbon. This does not preclude the presence of carbon containing groups in the side branches, or as interlinkages between principle structural members. Examples of such polymers are ethyl and butyl silicates.~~

~~221 LACQUERS-Clear or pigmented coatings formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction and to provide a quick drying, solid protective film.~~

~~222 MASTIC TEXTURE COATINGS-Coatings, except weatherproof mastic coatings, which are formulated to cover holes, minor cracks and to conceal surface irregularities.~~

~~223 METALLIC PIGMENTED PAINTS-Any coatings which are formulated with metallic pigment and which contain more than 10 grams of metal particles per liter of coating (0.08 lb/gal) as applied where such metal particles are visible in the dried film.~~

~~224 MULTI COLORED COATINGS-Coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.~~

~~225 NON FLAT COATINGS-Coatings which register gloss of 15 or greater on an 85° meter or 5 or greater on a 60° meter, or which are identified on the label as gloss, semi gloss, or eggshell enamel coatings.~~

~~Note 1~~

~~226 NON PRECURSOR ORGANIC COMPOUND-The following organic compounds have been designated by the EPA as having negligible photochemical reactivity: methane; ethane; methylene chloride; l,l,1 trichloroethane; trichlorotrifluoroethane (CFC 113); tri¬chlorofluoromethane (CFC 11); dichlorodifluoromethane (CFC 12); chlorodifluoromethane (CFC 22); trifluoromethane (FC 23); di¬chlorotetrafluoroethane (CFC 114) and chloropentafluoroethane (CFC 115).~~

~~227 OPAQUE STAINS-All stains that are not classified as semitransparent stains.~~

~~228 OPAQUE WOOD PRESERVATIVES-All wood preservatives that are not classified as semitransparent wood preservatives.~~

~~229 ORGANIC COMPOUND-Any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates and ammonium carbonate.~~

~~230 QUICK DRY ENAMELS-Non flat coatings which comply with the following:~~

~~230.1 Should be capable of being applied directly from the container by brush or roller when the ambient temperature is between 60°F and 80°F.~~

~~230.2 When tested in accordance with ASTM D1640 they shall: set to touch in two hours or less, dry hard in eight hours or less, and be tack-free in four hours or less by the mechanical method test.~~

~~230.3 Shall have a 60° meter dried film gloss of no less than 70.~~

~~231 QUICK DRY PRIMERS AND SEALERS-Primers, sealers and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and which are dry to the touch in one half hour and can be recoated in two hours (ASTM 1640).~~

~~232 ROOF COATINGS-Coatings which are formulated for the sole purpose of preventing penetration of the substrate by water. These coatings include bituminous roof and waterproof mastic coatings.~~

~~233 SEMI-TRANSPARENT STAINS-Coatings which are formulated to change the color of a surface but not conceal the surface.~~

~~234 SEMI TRANSPARENT WOOD PRESERVATIVES-Wood preservative stains which are formulated for the purpose of protecting exposed wood from decay or insect attack by the addition of a wood preservative chemical and which change the color of a surface but do not conceal the surface. These coatings perform their function by penetrating into the wood.~~

~~235 SHELLACS-Clear or pigmented coatings formulated with natural resins (except nitrocellulose resins), thinned with alcohol, formulated to dry by evaporation without a chemical reaction and intended to provide stain blocking properties as well as a solid protective film.~~

~~Note 1 This note is not part of Rule 335. For the reader's convenience, the current list of non-precursor~~ organic ~~compounds is found in Rule 100, Section 200.~~

236 SILICONES-A resin containing silicon unlike organic resins, which all contain carbon. The basic structure of silicones consist of silicon oxygen linkages.

237 SPECIALTY FLAT PRODUCTS-Self priming flat products used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; or coat acoustical materials without affecting their acoustical abilities.

238 SPECIALTY PRIMERS, SEALERS, AND UNDERCOATERS-Primers, sealers and undercoaters used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; block effloresecence; condition chalky surfaces; or coat acoustical materials without affecting their acoustical abilities.

239 SWIMMING POOL COATINGS-Coatings specifically formulated to coat the interior of swimming pools and resist swimming pool chemicals.

240 TILE LIKE GLAZE COATINGS-Coatings which are formulated to provide a tough, extra durable coating system, which are applied as a continuous (seamless) highbuild film and which cure to a hard glaze finish.

241 TRAFFIC COATINGS-Coatings which are formulated to be applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots.

242 UNIQUE VEHICLES-Generic polymer components not defined by any of the coatings listed in the category of industrial primers and topcoats in Section 305 of this rule, e.g., hypalon, phenoxy.

243 URETHANE POLYMERS-Coating vehicles containing a polyisocyanate monomer reacted in such a manner as to yield polymers containing any ratio, proportion, or combination of urethane linkages, active isocyanate groups, or polyisocyanate monomer.

244 VARNISHES-Clear or pigmented coatings formulated with various resins to dry by chemical reaction or exposure to air. These coatings are intended to provide a durable, transparent or translucent, solid protective film.

245 VINYL CHLORIDE POLYMERS-Polymers made by the polymerization of vinyl chloride or copolymerization of vinyl chloride with other unsaturated compounds, the vinyl chloride being in greatest amount by weight.

246 VOLATILE ORGANIC COMPOUND (VOC)-Any organic compound except non precursor organic compounds.

247 WATERPROOF MASTIC COATINGS-Weatherproof and waterproof coatings which are formulated to cover holes and minor cracks and to conceal surface irregularities.

248 WATERPROOF SEALERS-Coatings which are formulated for the sole purpose of protecting porous substrates by preventing the penetration of water.

SECTION 300-STANDARDS

301 PROHIBITION-BITUMINOUS PAVEMENT SEALERS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

302 INTERIM LIMITS-NON FLAT ARCHITECTURAL COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any non flat architectural coating manufactured after July 13, 1989, which contains more than 3.2 lbs (380 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings listed in Section 305 of this rule.

303 FINAL LIMITS-NON FLAT ARCHITECTURAL COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any non flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to speciality coatings listed in Section 305 of this rule.

304 LIMITS-FLAT ARCHITECTURAL COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any flat architectural coating manufactured after July 13, 1989, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to speciality coatings listed in Section 305 of this rule.

305 LIMITS-SPECIALTY COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any architectural coating that exceeds the following limits manufactured after the date listed below. Limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

| | Effective Dates | | |
|---|---|---|---|
| | 7/13/89 | 7/13/90 | 7/13/91 |
| COATING | | | (lb/gal) |
| Concrete Curing Compounds | | | 2.9 |
| Dry Fog Coating | | | |
| Flat | 4.6 | | 3.5 |
| Non flat | 3.5 | | 3.3 |
| Enamel Undercoaters | 3.8 | | 2.9 |
| General Primers, Sealers and Undercoaters | 3.3 | | 2.9 |
| Industrial Maintenance Primers and Topcoats | | | |
| Alkyds | 4.2 | 3.5 | 3.5 |
| Catalyzed Epoxy | | 4.2 | 3.5 |
| Bituminous Coating Materials | | | 3.5 |
| Inorganic Polymers | | | 3.5 |
| Vinyl Chloride Polymers | | | 3.5 |
| Chlorinated Rubbers | | | 3.5 |
| Acrylic Polymers | | 3.5 | 3.5 |

| | | | |
|---|---|---|---|
| ~~Urethane Polymers~~ | | ~~3.5~~ | ~~3.5~~ |
| ~~Silicones~~ | | | ~~3.5~~ |
| ~~Unique Vehicles~~ | | | ~~3.5~~ |
| ~~Lacquers~~ | | | ~~5.7~~ |
| ~~Opaque Stains~~ | ~~3.3~~ | | ~~2.9~~ |
| ~~Wood Preservatives~~ | | | ~~2.9~~ |
| ~~Quick Dry Enamels~~ | | | ~~3.3~~ |
| ~~Roof Coatings~~ | | | ~~2.5~~ |
| ~~Semi transparent Stains~~ | | | ~~2.9~~ |
| ~~Semi transparent and Clear Wood Preservatives~~ | | | ~~2.9~~ |
| ~~Opaque Wood Preservatives~~ | ~~3.3~~ | | ~~2.9~~ |
| ~~Specialty Flat Products~~ | | | ~~3.3~~ |
| ~~Specialty Primers, Sealers & Undercoaters~~ | | | ~~2.9~~ |
| ~~Stains, All~~ | | | ~~2.9~~ |
| ~~Traffic Coatings~~ | | | |
| ~~Applied to Public Streets and Highways~~ | ~~3.5~~ | | ~~2.1~~ |
| ~~Applied to other Surfaces~~ | ~~2.1~~ | | ~~2.1~~ |
| ~~Black Traffic Coatings~~ | | | ~~2.1~~ |
| ~~Varnishes~~ | | ~~4.2~~ | ~~2.9~~ |
| ~~Waterproof Mastic Coating~~ | | | ~~2.5~~ |
| ~~Waterproof Sealers~~ | | | ~~3.3~~ |
| ~~Wood Preservatives Except Below Ground~~ | | | ~~2.9~~ |

~~Note~~

306 ~~EXEMPTIONS-SPECIFIC USE COATINGS: This rule shall not apply to architectural coatings recommended by the manufacturer for use solely as one or more of the following:~~

~~306.1 Below ground wood preservative coatings.~~

~~306.2 Bond breakers.~~

~~306.3 Fire retardant coatings.~~

~~306.4 Graphic arts coatings (sign paints).~~

~~306.5 Mastic texture coatings.~~

~~306.6 Metallic pigmented coatings.~~

~~306.7 Multi-colored paints.~~

~~306.8 Quick dry primers, sealers and undercoaters.~~

~~306.9 Shellacs.~~

~~306.10 Swimming pool paints.~~

306.11 Tile like glaze coatings.

307 EXCEPTION-SMALL CONTAINERS: The provisions of this rule shall not apply to architectural coatings supplied in containers having capacities of one quart or less.

SECTION 400-ADMINISTRATIVE REQUIREMENTS

401 LABELING REQUIRED: Effective July 13, 1989, containers for all coatings subject to this rule shall carry a statement of the manufacturer's recommendation regarding thinning of the coatings. Data may be quantified with either English or metric units. This requirement shall not apply to the thinning of the architectural coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions, unless the recommended thinning for normal environmental and application conditions does not cause the coating to exceed its applicable standard. Architectural coatings subject to the Federal Insecticide, Fungicide and Rodenticide Act shall not be subject to the labeling requirements of this rule.

402 MANUFACTURE DATE REQUIRED: Containers for all coatings subject to the provisions of this rule shall display the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturers of such coatings shall file with the Control Officer an explanation of each code.

SECTION 500-MONITORING AND RECORDS

501 DETERMINATION OF COMPLIANCE: Testing procedures to determine compliance with prescribed VOC limits shall be consistent with Reference Methods 24 and 24A in the Arizona Testing Manual for Air Pollutant Emissions.

2 This note is not part of Rule 335. For the reader's convenience, words in italics are not part of this Rule 335, but are alphabetized repeats of listed coatings.

Last Formatted - Fall 1997

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 335 (Architectural Coatings), as revised and adopted July 13, 1988)**

## SIP RULE 336: SURFACE COATING OPERATIONS

~~REGULATION III - CONTROL OF AIR CONTAMINANTS~~
~~RULE 336~~
~~SURFACE COATING OPERATIONS~~
~~INDEX~~

236 POLYESTER COMPOSITE
237 PRIMER
238 QUALITY CLASS Q
239 REFINISHING
240 REPAIR COATING
241 RESTRICTED SPRAY GUN
242 SILICONE RELEASE COATING
243 SMALL SURFACE-COATING SOURCE (SSCS)
244 STRIPPABLE BOOTH COATING
245 SURFACE COATING
246 SURFACE COATING OPERATION
247 THREE-PIECE CAN SIDE-SEAM COAT
248 TOPCOAT
249 TOTAL VOC VAPOR PRESSURE (VOC COMPOSITE PARTIAL PRESSURE)
250 TOUCH UP COATING
251 TWO-PIECE CAN EXTERIOR END COAT
252 VINYL COATING (COATING ON VINYL)
253 VOC-BORNE COATING
254 VOC-BORNE DILUENT
255 VOC CONTENT
256 VOLATILE ORGANIC COMPOUND (VOC)

SECTION 300 - STANDARDS
301 SURFACE COATINGS
302 APPLICATION METHODS FOR SURFACE COATINGS
303 CLEANUP OF APPLICATION EQUIPMENT
304 HANDLING AND DISPOSAL OF VOC
305 EXEMPTIONS
306 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT
SECTION 400 - ADMINISTRATIVE REQUIREMENTS
401 COMPLIANCE SCHEDULE
SECTION 500 - MONITORING AND RECORDS
501 RECORDKEEPING AND REPORTING
502 ECS RECORDING REQUIREMENTS
503 COMPLIANCE DETERMINATION AND TEST METHODS
504 FORMULA FOR TOTAL VOC VAPOR PRESSURE

Revised 07/13/88
Revised 09/21/92
Revised 06/19/96
Revised 04/07/99

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 336
SURFACE COATING OPERATIONS

SECTION 100 - GENERAL

101 PURPOSE: To limit the emission of volatile organic compounds (VOCs) from surface coating operations.

102 APPLICABILITY: This rule applies to coating operations listed in Table 1 of this rule that are not more specifically regulated by another rule within Rules 300 to 359 of Regulation III. Examples of coating operations not regulated by this rule appear in subsection 305.1.

102.1 Surface-coating activities regulated under this rule include, but are not limited to, the application of coating, coating preparation/¬mixing at the facility applying the coating, and the cleanup of coating application equipment.

102.2 Subsections 305.2 through 305.7 set forth partial or conditional exemptions for certain materials or uses employed by a surface coating operation subject to this rule.

102.3 This rule is not applicable to coatings having a VOC content, minus exempt compounds, of less than 0.15 lb VOC/gal (18g/L) nor to solvents having a VOC content of material less than 0.15 lb VOC/gal.

102.4 NSPS & NESHAP: In addition to this rule, facilities may be subject to New Source Performance Standards (NSPS) in Rule 360 and/or to National Emission Standards for Hazardous Air Pollutants (NESHAP) in Rule 370 of these Rules and Regulations.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 ADHESIVE - A material used for the primary purpose of bonding two or more surfaces together.

202 AEROSOL CAN - A non-refillable hand-held container from which a product is dispensed by means of pressurized propellant packaged within the container.

203 AIR-DRIED COATING - A coating which is dried by the use of air or forced warm air at temperatures up to and including 200°F (93.3°C).

204 BAKED COATING - A coating that is dried or cured in an oven in which the oven temperature exceeds 200°F (93.3°C).

205 CAN COATING - Any coating used in the production of metal cans.

206 CAN PRINTING INK - A fluid or viscous formulation used in can printing that imparts design, pattern, and/or alphanumeric symbols to a can.

207 CLEAR COAT - Any coating which lacks color or opacity or is transparent.

208 COIL COATING - Any coating applied to the surface(s) of flat metal sheets or strips that are formed into rolls or coils not used to make cans.

209 DAY - A period of 24 consecutive hours beginning at midnight.

~~210 ELECTROSTATIC SPRAY/SYSTEM - A method of applying atomized paint by electrically charging the coating and the object being coated with opposing charges. A higher proportion of the coating reaches and coats the object than would occur in the absence of a charge.~~

~~211 EMISSION CONTROL SYSTEM (ECS) - A system, approved in writing by the Control Officer, designed and operated in accordance with good engineering practice to reduce emissions of volatile organic compounds. Such system consists of an emissions collection subsystem and an emissions processing subsystem.~~

~~212 END SEALING COMPOUND - A compound which is coated onto can ends and functions as a gasket when the end is attached to the can.~~

~~213 EXEMPT EVAPORATING COMPONENTS (EXEMPT COMPOUNDS) - The non-VOC, evaporating portion of a coating formulation; this necessarily includes all non-precursor organic compounds, as well as water and other inorganic liquids and gases.~~

~~214 EXTERIOR CAN-BASECOAT - Any coating applied to the exterior of a can to provide protection for the metal or to provide background for any lithographic or printing operation.~~

~~215 EXTREME PERFORMANCE COATING - A coating used on a surface where the coated surface in its intended use is at temperatures consistently in excess of 250°F (121°C).~~

~~216 FABRIC - Textile material. Non-manufactured items from nature are not fabric except for natural threads, fibers, filaments, and similar that have been manufactured into textile fabric.~~

~~217 FABRIC COATING - Any decorative or protective coating or reinforcing material applied onto or impregnated into textile fabric.~~

~~218 FILM COATING - Any coating applied in a web coating process on film substrate other than paper or fabric, including, but not limited to, typewriter ribbons, photographic film, magnetic tape and metal foil gift wrap.~~

~~219 FLEXIBLE PLASTIC PART OR PRODUCT - A plastic part or product designed to withstand significant deformation without damaging it for its intended use. Not included are flexible plastic parts that are found on a can, coil, metal furniture, or large appliance, or that are already a part of an aerospace component, highway vehicle, mobile equipment, architectural building or structure, or a previously coated marine vessel.~~

~~220 HEAT SENSITIVE MATERIAL - Materials which cannot consistently be exposed to temperatures greater than 203°F (95°C) without materially affecting desired function, performance, or other characteristics.~~

~~221 HIGHWAY VEHICLE - Any vehicle that is physically capable of being driven upon a highway including, but not limited to, cars, pickups, vans, trucks, truck-tractors, motor-homes, motorcycles, and utility vehicles.~~

~~222 INTERIOR BASECOAT - Any coating applied to the interior of a can to provide a protective lining between the intended contents and the metal shell of the can.~~

223 ~~INTERIOR BODY SPRAY - Any coating sprayed onto the interior of a can to provide a protective film between the intended contents and the metal shell of the can.~~

224 ~~LARGE APPLIANCE - A door, case, lid, panel, or interior support part of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, evaporative coolers and other similar products.~~

225 ~~LOW PRESSURE SPRAY GUN - An air-atomized spray gun that, by design, functions best at tip pressures below 10 psig (516 mm Hg), measured according to subsection 503.1d of this rule, and for which the manufacturer makes no claims to the public that the gun can be used effectively above 12 psig (619 mm Hg).~~

226 ~~METAL FURNITURE - Any furniture made of metal or any metal part which will be assembled with other parts made of metal or other material(s) to form a furniture piece.~~

227 ~~MINUS EXEMPT COMPOUNDS or MINUS EXEMPT EVAPORATING COMPONENTS - See VOC Content Minus Exempt Compounds.~~

228 ~~MOBILE EQUIPMENT - Any equipment that is physically capable of being driven or drawn upon a highway including, but not limited to, the following types of equipment: construction vehicles (such as mobile cranes, bulldozers, concrete mixers); farming equipment (wheel tractor, plow, pesticide sprayer); hauling equipment (truck trailers, utility bodies, camper shells); and miscellaneous equipment (street cleaners, mopeds, golf carts).~~

229 ~~NON-PRECURSOR ORGANIC COMPOUND - Any of the organic compounds which have been designated by the EPA as having negligible photochemical reactivity. EPA designates such compounds as "exempt". A listing of these compounds is found in Rule 100.~~

230 ~~ORGANIC COMPOUND - Any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates, and metallic carbides.~~

231 ~~OTHER METAL PARTS AND PRODUCTS - Any metal part or product, excluding the following items that are made of metal: can, coil, furniture, large appliance, aerospace component, metal foil, metal textile fabric, semiconductor metal, highway vehicle, mobile equipment, an architectural building or structure, a previously coated marine vessel.~~

232 ~~OVERVARNISH - Any coating applied to a can to reduce the coefficient of friction, to provide gloss, or to protect the finish against abrasion and/or corrosion.~~

233 ~~PAPER COATING - Any coating applied on or impregnated into paper, including, but not limited to, adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper and pressure sensitive tapes.~~

234 ~~PLASTIC - Any solid, synthetic: resin, polymer, or elastomer, except rubber. For the purposes of this rule, plastic film is considered film; fabric and paper made of polymeric plastic fibers are considered fabric and paper, respectively.~~

235 ~~POLYESTER and POLYESTER RESIN - A complex, polymeric ester containing difunctional acids.~~

236 ~~POLYESTER COMPOSITE - Cured material made of polyester resin with reinforcing material imbedded in it, such as glass fibers.~~

237 ~~PRIMER - A coating applied directly to substrate for any one or combination of the following purposes: corrosion prevention, protection from the environment, functional fluid resistance, or adhesion of subsequent coatings.~~

238 ~~QUALITY CLASS Q - Any system, structure, coating or other component which, if defective or inoperable, could cause or increase the severity of a nuclear incident, thereby imposing undue risk to the health and safety of the public.~~

239 ~~REFINISHING - Recoating a used object's surface which arrives at the refinisher with a coating or with a previous coating worn away by use.~~

240 ~~REPAIR COATING - A coating or coating operation used to recoat the portion of a completed finish that suffered post-production damage at the facility where the finish was applied.~~

241 ~~RESTRICTED SPRAY GUN - Any air-atomizing spray gun that is not a low pressure spray gun, and any other coating gun that is not on the list in subsection 303.1 of this rule.~~

242 ~~SILICONE RELEASE COATING - Any resin coating, the major cured portion of which is silicone resin, having as its primary function the release of food products from metal surfaces such as baking pans.~~

243 ~~SMALL SURFACE-COATING SOURCE (SSCS) - A facility from which the total VOC emissions for all surface coating operations that are subject to this rule without, or prior to, any emission control, is less than 15 pounds (6.8 kg) per day and less than 2 tons (1814 kg) per year; as demonstrated by both adequate records of coating and diluent use (pursuant to subsection 501.2) and a separate tally of the number of days each month that such coating operations occur.~~

244 ~~STRIPPABLE BOOTH COATING - A temporary coating that is applied to spray booth surfaces to receive the overspray and protect the surfaces, and which is designed to readily be pulled off the substrate in strips or sheets, and disposed of.~~

245 ~~SURFACE COATING - Any liquid, fluid, or mastic composition which is converted to a solid (or semi-solid) protective, decorative, or adherent film or deposit after application as a thin layer. Surface coating is generally distinct and different from impregnation and from applying adhesive for bonding purposes.~~

246 ~~SURFACE COATING OPERATION - Preparation, handling, mixing, and application of surface coating, and cleanup of application-equipment and enclosures at a facility where surface coating is applied.~~

247 ~~THREE-PIECE CAN SIDE-SEAM COAT - Any coating sprayed onto the interior and/or exterior of a can body seam on a three-piece can to protect the exposed metal.~~

248 ~~TOPCOAT - The final, permanent, coating-formulation that completed the finish on a surface.~~

249 ~~TOTAL VOC VAPOR PRESSURE (VOC COMPOSITE PARTIAL PRESSURE) - The sum of the partial pressures of the compounds defined as VOCs, calculated according to the formula in Section 504 of this rule.~~

250 ~~TOUCH UP COATING - A coating used to cover minor coating imperfections after the main coating operation. This includes touch-up coating that accompanies the purchase of an object already coated with that coating.~~

251 ~~TWO-PIECE CAN EXTERIOR END COAT - Any coating applied to the exterior end of a can to provide protection to the metal.~~

252 ~~VINYL COATING (COATING ON VINYL) - Any decorative or protective coating or reinforcing coating applied over vinyl-coated textile fabric or vinyl sheets.~~

253 ~~VOC-BORNE COATING - A coating that contains more VOC than water, by weight.~~

254 ~~VOC-BORNE DILUENT - A solvent or other diluent that contains more VOC than water, by weight.~~

255 ~~VOC CONTENT - In this rule, VOC content is determined by one of the following two formulas: To determine compliance with Table 1 or the 2.0 lb VOC/gal threshold in Section 302, use the following formula in subsection 255.1; For other purposes, use the formula in subsection 255.2:~~

255.1 ~~VOC CONTENT MINUS EXEMPT COMPOUNDS (is the same as VOC CONTENT MINUS EXEMPT EVAPORATING COMPONENTS) (also known as "THE EPA METHOD 24 VOC CONTENT" on manufacturer's data sheets.)~~

~~VOC Content Minus Exempt Compounds =~~ $\frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$

~~Using consistently either English or metric measures in the calculations,~~

where:

$W_s$ = weight of all volatile material in pounds (or grams), including VOC, water, non-precursor organic compounds and dissolved vapors

$W_w$ = weight of water in pounds (or grams)

$W_{es}$ = weight of all non-precursor compounds in pounds (or grams)

$V_m$ = volume of total material in gallons (or liters)

$V_w$ = volume of water in gallons (or liters)

$V_{es}$ = volume of all non-precursor compounds in gallons (or liters)

255.2 VOC CONTENT OF MATERIAL (MATERIAL VOC-CONTENT)

$$\text{VOC Content Of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Using consistently either English or metric measures in the calculations,
where:

$W_s$ = = weight of all volatile material in pounds (or grams) including VOC, water, non-precursor organic compounds and dissolved vapors

$W_w$ = = weight of water in pounds (or grams)

$W_{es}$ = = weight of all non-precursor compounds in pounds (or grams)

$V_m$ = = volume of total material in gallons (or liters)

256 VOLATILE ORGANIC COMPOUND (VOC) - Any organic compound which participates in atmospheric photochemical reactions, except non-precursor organic compounds.

SECTION 300 - STANDARDS

301 SURFACE COATINGS: A person shall comply with one of the following for all applications of surface coatings:

301.1 Meet the limits in Table 1.

301.2 Operate an ECS in accordance with subsection 306.1 when applying a coating that exceeds the VOC limits in Table 1.

301.3 Qualify for an exemption under Section 305.

| SURFACE COATING EMISSION LIMITS | | |
|---|---|---|
| TYPE OF SURFACE COATING | LIMITS AS APPLIED: VOC content minus exempt compounds (see subsection 255.1) | |
| Column I | Column II<br>lbs/gal | g/liter |
| Can Coating | | |
| Sheet Basecoat (Exterior and Interior) and Overvarnish | 2.8 | 340 |
| Two-Piece Can Exterior (Basecoat and Overvarnish) | 2.8 | 340 |
| Two and Three-Piece Can Interior Body Spray | 4.2 | 510 |
| Two-Piece Can Exterior End (Spray or Roll Coat) | 4.2 | 510 |
| Three-Piece Can Side-Seam Spray | 5.5 | 660 |
| End Sealing Compound | 3.7 | 440 |
| Can Printing Ink | 2.5 | 300 |
| Coil Coating (any coat) | 2.6 | 310 |
| Metal Furniture Coating | 3.0 | 360 |
| Large Appliance Coating | 2.8 | 340 |
| OTHER METAL PARTS AND PRODUCTS COATING (As defined in Section 231) | | |
| The following includes Non-adhesive Coating, Adhesive, Adhesive Primer, Caulking, and Beaded Sealants: | | |
| Air-Dried Coating | 3.5 | 420 |
| Baked Coating [above 200°F (93°C)] | 3.0 | 360 |
| Silicone Release Coating: Baked or Air-Dried | 3.5 | 420 |
| | | |
| Fabric Coating | 2.9 | 350 |
| Film Coating | 2.9 | 350 |
| COATING PLASTIC PARTS AND PRODUCTS THAT ARE Not Defined as Flexible | 3.5 | 420 |
| COATING FLEXIBLE PLASTIC PARTS AND PRODUCTS | | |
| Primer | 4.1 | 490 |
| Color Topcoat | 3.8 | 450 |
| Basecoat/Clear Coat (Combined System) – Limit for either coat | 4.5 | 540 |
| Paper Coating, including Adhesives | 2.9 | 350 |
| Vinyl Coating (Coating on Vinyl) | 3.8 | 450 |
| STRIPPABLE BOOTH COATINGS | 2.0 | 240 |

302 APPLICATION METHODS FOR SURFACE COATINGS: A person shall employ one of the following for all applications of surface coating containing more than 2 pounds of VOC per gallon (240 g/L) minus exempt compounds:

302.1 A low pressure spray gun; or

302.2 An electrostatic system; or

302.3 A system that atomizes principally by hydraulic pressure, including "airless" and "air assisted airless"; or

302.4 Non-atomizing or non-spraying application methods, such as but not limited to dipping, rolling, or brushing; or

302.5 Any method which is approved by the Administrator of the Federal EPA and the Control Officer as having a transfer efficiency of 65% or greater.

303 CLEANUP OF APPLICATION EQUIPMENT: A person shall comply with the following when using VOC-containing material to clean application equipment:

303.1 Disassemble any spray gun and other application equipment and clean it in:

a. A container which remains covered at all times, except when the application equipment is being handled in the container, or transferred into or out of the container; or

b. A commercially-sold gun cleaning machine which shall be operated and maintained as stipulated in the Air Pollution Permit's Operation and Maintenance (O&M) Plan, or – in the absence of its mention in the O&M Plan – according to manufacturer's or distributor's instructions.

303.2 Vapor Pressure Limits: Any person subject to this rule using VOC-solvent to clean coating application equipment shall use only solvent which, as used, has a VOC-vapor pressure below 35 mm Hg at 20° C (68° F), except for sprayless equipment exempted pursuant to subsection 305.6.

304 HANDLING AND DISPOSAL OF VOC:

304.1 Use And Storage: A person shall cover and keep covered each VOC-containing material which is not currently in use. A person shall store finishing and cleaning materials in closed or covered leak-free containers.

304.2 Disposal Of VOC And VOC-Containing Material: A person shall store all VOC-containing materials intended for disposal including, but not limited to, rags, waste coatings, waste brushes, waste rollers, waste applicators, waste solvents, and their residues, in closed, leakfree containers which are legibly labeled with their contents and which remain covered when not in use.

305 EXEMPTIONS:

305.1 Categorical Exemptions: This rule does not apply to the following operations:

a. Aerospace coating operations (Rule 348).

b. Architectural coating, including buildings and erected structures (Rule 335).

c. Cleaning: VOC loss from cleaning or stripping a surface for coating or other purpose is regulated by Rule 331.

d. Marine vessel exterior refinishing.

e. Polyester coatings applied to polyester composites.

f. Printing and graphic arts coating (Rule 337).

g. Semiconductor manufacturing (Rule 338).

h. Coating a highway vehicle or mobile equipment (Rule 345).

i. Wood: Coating Wood Furniture (Rule 342); Coating Wood Millwork (Rule 346).

305.2 Exemptions For Qualified Materials: Rule 336 does not apply to the following materials that meet the specific qualification(s) and limitation(s) set forth herein:

a. Leak-Preventing Materials: Sealants, adhesives, caulking, and similar materials used on the following substrates for the primary purpose of leak prevention are exempt from this rule:

(1) Non-metallic substrates; and

(2) Used substrates, post manufacture, such as, but not limited to, old joints and seals on pipe and valve assemblies.

b. Adhesive Use:

(1) Adhesive and adhesive primer applications are exempt from this rule, except for the 2 categories that appear in Table 1, namely adhesive materials applied to other metal parts and products (as defined in Section 231), and adhesives used in paper coating (as defined in Section 233).

(2) Any adhesive exempted by this Rule 336 and to which no other rule in Regulation III specifically applies shall comply with the provisions of Rule 330 (Volatile Organic Compounds) of these Rules & Regulations.

c. Certain Joint Fillers: Caulking and beaded sealants used to fill gaps or to fill joints between surfaces are exempt from this rule, except those used in manufacturing other metal parts and products as defined in Section 231 of this rule, or in the manufacturing of cans.

d. Extreme Performance Coatings: Extreme performance coatings are exempt from the VOC limits of Table 1 when used under the following conditions:

(1) Used on internal combustion engine components that are normally above 250°F (121°C) during use; or

(2) Used at temperatures above 250°F (121°C) on items that are both included under SIC (Standard Industrial Classification, 1987) codes 3661, 3663, 3669, 3677, 3678, 3679, or 3769 and are electronic products in space vehicles and/or are communications equipment. The US Government Printing Office "Standard Industrial Classification Manual, 1987" (and no future editions) is incorporated by reference and is on file at Maricopa County Environmental Services Department, 1001 N. Central Avenue, Suite 201, Phoenix, Arizona 85004-1942.

305.3 ECS Use In Lieu Of Equipment/Practice: In lieu of meeting an equipment or work practice standard within Sections 302, 303, or 304, an owner or operator is allowed to instead use an ECS that has a capture efficiency not less than 90% and meets all ECS requirements in Section 306.

305.4 Spray-Gun And VOC-Limit Exemptions: The following are exempt from subsection 301.1, subsection 301.2, and Section 302 of this rule:

a. Coating with an aerosol can.

b. Touch up or repair coating operations as defined in Sections 250 and 240.

c. Low usage coatings which in aggregate of all formulations do not exceed 55 gallons (208 liters) per year facility-wide if the operator updates usage records of these coatings on each day of their use, pursuant to subsection 501.2.

d. A small surface-coating source (SSCS) as defined in Section 243. However, once a small surface-coating source exceeds either the 15 lb per day or the 2 tons per year limits that are required to maintain SSCS status, that facility is permanently subject to the limits of subsection 301.1, subsection 301.2, and Section 302, with the following exception:

(1) For such a facility that does not have either a 15 lb/day or a 2 ton/year VOC emission limit in an Air Pollution Permit for processes regulated by this rule, an owner or operator may retain the exemption if s/he agrees in writing to enforceable permit conditions that establish these or stricter limits.

2) However, a facility that violates its permit limit of either 15 lbs VOC/day or 2 tons VOC/yr. for coating process regulated by this Rule 336 is permanently subject to the limits of subsections 301.1 and 301.2, and Section 302.

e. A Quality Class Q protective coating that is used on equipment, structures, and/or components within a containment facility of a nuclear power plant and is

approved in accordance with either ANSI standards N101.2 and N101.4 or with ASTM Standards D3911 and D3843.

f. A tactical military-equipment coating that is approved in an MCESD Air Pollution Permit subsequent to a sufficient demonstration by the user that no compliant substitute exists.

305.5 Special Facilities/Operations:

a. Silicone Release Coatings: Silicone release coating operations controlled by an ECS pursuant to subsection 301.2 are exempt from the 85 percent overall control efficiency requirement if the ECS demonstrates at least 70 percent overall control and the coating is applied with a liquid seal air spray system.

b. Bonding Impact Resistant Rubber Lining To Metal: An adhesive and an adhesive-primer are exempt from Table 1 limits, but shall not have a VOC content of material exceeding 850 grams of VOC per liter (7.1 lb/gal), if such adhesive is used to bond sheets/strips of rubber to metal equipment so that such rubber sheathing directly contacts material received by the metal and so protects the metal. This exception does not apply to any other situations where adhesives are used to bond rubber to metal.

305.6 Exemption Of Coating Applicator Cleanup: A person is allowed to use solvent that has at 20° C (68° F) a total VOC vapor pressure above 35 mm Hg for cleaning coating-application equipment, but only if such application equipment does not use spray devices and the same principal solvent is used for cleaning as is used in the coating.

305.7 Low-Usage Allowance For Restricted Guns: A person may employ spray guns otherwise prohibited by Section 302 for use with coatings over 2 lb VOC /gal under the following limited conditions:

a. If VOC emissions from the finishing application station, are captured and directed to an ECS complying with the provisions of Section 306.

b. To coat the inside of pipes and tubes with a wand-style applicator.

c. Using an airbrush or other small gun that has a reservoir capacity not exceeding 250 cc (8.8 fluid ounces) and is used solely for detailing, lettering, touchup, and/or repair.

306 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT:

306.1 ECS Control Efficiencies: To meet the requirements pursuant to subsection 301.2, subsection 305.3, or subsection 305.7, an ECS shall be operated as follows:

a. Overall ECS Efficiency: Overall, the ECS shall prevent at least 85% of the mass of the VOC emitted by each coating or process so controlled from entering the

atmosphere except as successfully controlled pursuant to the alternative in subsection 306.1c(2).

b. Capture Efficiencies:

(1) For an ECS used pursuant to subsection 301.2 and/or subsection 305.7, capture shall be at least 87%.

(2) For an ECS used pursuant to subsection 305.3, capture shall be at least 90%.

c. Control Efficiency Of The Emissions Processing Subsystem:

(1) The emissions-processing subsystem of the ECS shall reduce the mass of VOC entering it by at least 90 percent; or

(2) Alternative For Very Dilute Input: For VOC input-concentrations of less than 100 ppm (as carbon) at the inlet of the ECS emissions-processing subsystem, an ECS' VOC processing subsystem also satisfies the processor efficiency requirements of this rule if:

(a) The VOC output is consistently less than 20 mg VOC/M3 (as carbon) adjusted to standard conditions; and

(b) The ECS consistently shows an overall control efficiency of at least 85% when tested pursuant to subsection 503.3 at VOC input-concentrations exceeding 100 ppm (as carbon).

d. Coating that exceeds the applicable VOC-limits in Table 1 shall be clearly identified such that coating-operators are informed an ECS must be used.

306.2 Operation And Maintenance (O&M) Plan Required For ECS:

a. An owner or operator shall provide and maintain (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this Rule 336 or to an air pollution control permit.

b. The owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to this Rule 336.

c. The owner or operator shall comply with all the identified actions and schedules provided in each O&M Plan.

306.3 Providing And Maintaining ECS Monitoring Devices: Any person incinerating, adsorbing, or otherwise processing VOC emissions pursuant to this rule shall provide, properly install and maintain in calibration, in good working order and in operation, devices described in the facility's O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained.

Records shall kept pursuant to Section 502 which demonstrate that the ECS meets the overall control standard required by subsection 306.1.

306.4 O&M Plan Responsibility: An owner or operator of a facility that is required to have an O&M Plan pursuant to subsection 306.2 must fully comply with all O&M Plans that the owner or operator has submitted for approval, but which have not yet been approved, unless notified otherwise by the Control Officer in writing.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE:

401.1 By August 1, 1999:

a. All new recordkeeping provisions shall be in effect, including subsections 501.1c and 501.2a.

b. The intention to use an Emission Control System (ECS) shall be announced to the Control Officer in writing if:

(1) The ECS is used as an alternative to meeting the spray-gun provisions of Section 302; or

(2) The ECS is used as an alternative to meeting the gun cleaning machine provisions of Section 303.

401.2 By November 1, 1999, the following shall be in continuing use:

a. Spray guns required pursuant to Section 302;

b. Cleaning-solvent(s) having the required vapor pressure pursuant to Section 303, and the data sheet(s) confirming the vapor pressure.

401.3 By May 1, 2000, the ECS announced pursuant to subsection 401.1b shall be in continuing use.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any person subject to this rule shall comply with the following requirements of subsections 501.1 and 501.2 that apply to materials regulated by this Rule 336. Records shall be retained for 5 years and shall be made available to the Control Officer upon request.

501.1 Current Lists:

a. Maintain a current list of coatings, adhesives, reducers, thinners, gun-cleaning materials, additives, and any other VOC-containing materials regulated by this rule; give the VOC content of material for each as received (before thinning). A complete, neat assemblage of this data meets the requirements for a list. Express

~~VOC content in 1 of 3 forms: pounds VOC per gallon, grams VOC per liter, or the percent VOC by weight along with the specific gravity or density,(2 numbers are required).~~

b. ~~Less Stringent Recordkeeping For Consistently Low Users: An operator of a facility that always uses less than 2 gallons per day total of thinner and coating (listed in Table 1), meets the listing and recording requirements of subsections 501.1a, 501.1c, and 501.2 if:~~

(1) ~~All purchase receipts/invoices of VOC-containing material that is regulated by this rule for the most recent 12 months are kept together; and~~

(2) ~~Current data sheets show the VOC content of material for every VOC-containing substance currently used that is regulated by this rule.~~

c. ~~Facilities That Are Not Small Surface-Coating Sources: Facilities that are not small surface-coating sources shall do the following:~~

(1) ~~Coatings: For all coatings (except those recorded under the subsection 305.4c low-usage allowance), make the following listings for coatings and adhesives that have VOC limits in Table 1:~~

(a) ~~VOC Before Reducing: The VOC content of each coating as received, minus exempt compounds. (This figure is sometimes called the "EPA Method 24" VOC content on manufacturer's data sheets). If the coating is a multi-part coating, list the VOC content which the manufacturer states the coating will have once you have mixed all the necessary parts together in the proportions specified by the manufacturer.~~

(b) ~~List Maximum VOC Content Of Coating As Applied: For each coating that you thin/reduce or add any additive to, record in a permanent log either of the following:~~

(i) ~~The maximum number of fluid ounces thinner/reducer that you ever add to a gallon of unreduced coating (or maximum g/liter), and the maximum fluid ounces of every other additive you mix into a gallon of the coating; or~~

(ii) ~~The VOC content of the coating, after adding the maximum amount of thinner/reducer and other additives that you would ever add, as determined by the formula in subsection 255.1.~~

(2) ~~Applicator Cleanup Solvent: Have a hardcopy of the VOC vapor pressure (VP) at 20°C (68°F) of solvent(s) used to clean spray guns, hoses, reservoirs, and any other coating application equipment. Any one of the following ways of providing the VP data is sufficient:~~

(a) ~~A current manufacturer's technical data sheet;~~

(b) A current manufacturer's safety data sheet (MSDS);

(c) Actual test results; or

(d) A letter signed by an official or lab manager of the supplying facility.

501.2 Frequency Of Updating Usage Records: Update your records, showing the type and amount used of each VOC-containing coating or adhesive which is regulated by name or type in Table 1, and update each VOC-containing material, related to surface coating, that is not addressed by Table 1. This includes, but is not limited to, thinners, surfacers, and diluents. Maintain records according to the following schedule:

a. Small Surface-Coating Sources: Small surface-coating sources shall update each month's records of coating use by the end of the following month.

b. All Other Sources: For a source that does not meet the definition of small surface-coating source:

(1) Monthly: Monthly update records of each coating used that complies with the VOC limits in Table 1. Complete a month's update by the end of the following month.

(2) Daily: Daily update the usage of each coating that exceeds its limits in Table 1, including coating exempted by subsection 305.4c.

501.3 Grouping By VOC Content: For purposes of recording usage, coatings and adhesives that are in the same category in Table 1, and have similar VOC content, may be recorded under a name that includes the category name. The highest VOC content among the members of that grouping shall be assigned to that grouping, rounded to the nearest 10th of a pound. To identify what products belong within each group, after each group name and the group's VOC content of material must appear the name of each product in the group and its VOC content of material. For example: For flexible plastic parts, you use 20 gallons of primer that has 3.04 lb VOC/gal., 30 gallons of primer having 3.14 lb VOC/gal., and 40 gallons of primer having 2.89 lb VOC/gal. You may record usage as 90 gallons of flexible plastic primer containing 3.1 lb VOC/gal. If grams VOC per liter is used to record VOC content, round off to the nearest whole number of grams.

502 ECS RECORDING REQUIREMENTS:

502.1 On each day an ECS is used at a facility pursuant to this rule, an owner or operator of the facility shall:

a. Record the amount and VOC content of coating, the amount of catalyst/hardener, and the amounts of solvent, reducer, and diluent used that were subject to ECS control pursuant to this Rule 336; and

b. Make a permanent record of the operating parameters of the key systems as required by the O&M Plan; and

c. Make a permanent record of the maintenance actions taken, within 24 hours of the action's completion, for each day or period in which the O&M Plan requires that maintenance be done.

502.2. An explanation shall be entered for scheduled maintenance that is not performed during the period designated for it in the O&M Plan.

503 COMPLIANCE DETERMINATION AND TEST METHODS: When more than one test method is permitted for a determination, an exceedance of the limits established in the rule determined by any of the applicable test methods constitutes a violation of this rule.

503.1 Compliance Determination: The following means shall be used to determine compliance with this rule:

a. Measurement of VOC content of materials subject to Section 301 or Section 302 of this rule shall be conducted and reported using one of the following means:

(1) VOC content of coatings, solvents, and other substances having less than 5% solids will be determined by the test method in subsection 503.2f (BAAQMD Method 31 [April 15, 1992]) or 503.2g (SCAQMD Method 313-91 [April 1997]).

(2) The VOC content of coatings or other materials having 5% or more solids will be determined by the test method in subsection 503.2c (EPA Method 24), 503.2f (BAAQMD Method 31 [April 15, 1992]) or 503.2g (SCAQMD Method 313-91 [April 1997]).

(a) Plastisols, powder coatings, and radiation-cured coatings shall be cured according to the procedures actually used in the coating process being tested before final VOC-emission determinations are made.

(b) In the case of multi-component, polymerizing coatings tested according to 503.1a, Method 24 shall be modified to eliminate the post-mixing dilution-step (that employs toluene or other solvent). Instead, the mixture shall be spread by appropriate technique to form a thin layer, occupying the entire bottom of the foil pan. Techniques included in the method referenced in 503.1b can be used as a guide for such spreading.

b. The VOC content of gaseous emissions entering and exiting an ECS shall be determined by either EPA Method 18 referred to in subsection 503.2b, or EPA Method 25 and its submethod, referred to in subsection 503.2d.

c. Capture efficiency of an ECS shall be determined either by the methods in 503.2e (EPA Method 204 and its submethods), or by using mass balance calculation methods in concert with the methods in 503.2a (EPA Methods 2, 2a, 2c, and 2d).

d. Measurement of air pressure at the center of the spray gun tip and air horns of an air-atomizing spray gun (reference subsection 302.1 and Section 225) shall be performed using an attachable device in proper working order supplied by the gun's manufacturer for performing such a measurement.

e. Temperature measurements shall be done with an instrument with an accuracy and precision of less than one-half degree Fahrenheit (0.25°C) for temperatures up to 480°F (250°C).

503.2 Test Methods Adopted By Reference: The EPA test methods as they exist in the Code of Federal Regulations (CFR) (July 1, 1998), as listed below, are adopted by reference. The other test methods listed here are also adopted by reference, each having paired with it a specific date that identifies the particular version/=revision of the method that is adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in this Section 503 are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

a. EPA Methods 2 ("Determination of Stack Gas Velocity and Volumetric Flow Rate"), 2a ("Direct Measurement of Gas Volume Through Pipes and Small Ducts"), 2c ("Determination of Stack Gas Velocity and Volumetric Flow rate in Small Stacks or Ducts"), and 2d ("Measurement of Gas volumetric Flow Rates in Small Pipes and Ducts"). All 4 of the foregoing methods are in 40 CFR 60, Appendix A.

b. EPA Method 18 ("Measurement of Gaseous Organic Compound Emissions by Gas Chromatography") and its submethods (40 CFR 60, Appendix A).

c. EPA Test Method 24 ("Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings") (40 CFR 60, Appendix A).

d. EPA Method 25 ("Determination of Total Gaseous Nonmethane Organic Emissions as Carbon") and its submethods (40 CFR 60, Appendix A).

e. EPA Test Methods 204 ("Criteria For and Verification Of a Permanent or Temporary Total Enclosure"), 204a, 204b, 204c, 204d, 204e, and 204f (Appendix M, 40 CFR 51).

f. California's Bay Area Air Quality Management District (BAAQMD) Method 31 (April 15, 1992), "Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings."

g. California's South Coast Air Quality Management District (SCAQMD) Method 313-91 (April 1997).

503.3 Test Methods For ECS: For coatings/adhesives controlled pursuant to subsection 302.1 or subsection 305.3:

a. ~~Measurements of VOC emissions from an ECS shall be conducted in accordance with EPA Methods 18 or its submethods, or by Method 25 or its submethods (40 CFR 60, Appendix A).~~

b. ~~Capture efficiency of an ECS shall be determined by mass balance in combination with ventilation/¬draft rate determinations done in accordance with subsection 503.3c or with US EPA Test Methods 204, 204a, 204b, 204c, 204d, 204e, and 204f (Appendix M, 40 CFR 51).~~

c. ~~Ventilation/draft rates shall be determined by EPA Methods 2, 2a, 2c, and 2d (40 CFR 60, Appendix A).~~

504 ~~FORMULA FOR TOTAL VOC VAPOR PRESSURE: Equivalent to: VOC COMPOSITE PARTIAL PRESSURE. Reference subsection 303.2~~

$$PP_c = \frac{\sum_{i=1}^{n} (W_i)(VP_i)/MW_i}{\frac{W_w}{18} + \sum_{i=1}^{m} \frac{W_{ej}}{MW_{ej}} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

$W_i$ = ~~Weight of the "i"th VOC compound in grams~~

$W_w$ = ~~Weight of water in grams~~

$W_{ej}$ = ~~Weight of the "j"th non-precursor compound in grams~~

$MW_i$ = ~~Molecular weight of the "i"th VOC compound in grams per gram mole, e.g., one gram-mole of isopropyl alcohol weighs 60 grams~~

$MW_{ej}$ = ~~Molecular weight of the "j"th non-precursor compound, e.g., 1 gram-mole of acetone weighs 58 grams~~

$PP_c$ = ~~VOC composite partial pressure at 20°C in mm mercury (Hg)~~

$VP_i$ = ~~Vapor pressure of the "i"th VOC compound at 20°C in mm Hg~~

18 = ~~Weight of one gram-mole of water~~

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 336 (Surface Coating Operations), as revised and adopted April 7, 1999)**

## SIP RULE 340: CUTBACK AND EMULSIFIED ASPHALT

~~REGULATION III - CONTROL OF AIR CONTAMINANTS~~
~~RULE 340~~
~~CUTBACK AND EMULSIFIED ASPHALT~~
~~INDEX~~



~~Revised 07/13/88~~
~~Revised 06/22/92~~
~~Revised 09/21/92~~

~~MARICOPA COUNTY~~
~~AIR POLLUTION CONTROL REGULATIONS~~
~~REGULATION III - CONTROL OF AIR CONTAMINANTS~~
~~RULE 340~~
~~CUTBACK AND EMULSIFIED ASPHALT~~

~~SECTION 100 - GENERAL~~

101 PURPOSE: To limit emissions of volatile organic compounds (VOCs) from the use of cutback and emulsified asphalt and other bitumens.

102 APPLICABILITY: The provisions of this rule apply to the use and application of cutback and emulsified asphalt or tar materials for the paving, construction or maintenance of highways, streets, roads, parking lots, and driveways, and to the application of such materials onto soil and earthworks.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 ASPHALT CEMENT - The dark brown to black cementitious material (solid, semi-solid, or liquid in consistency), of which the main constituents are naturally occurring bitumens or bitumens resulting from petroleum refining.

202 ASPHALT RUBBER - An asphaltic binder made with asphalt cement and at least three percent of ground tire rubber by weight.

203 BITUMEN - A class of black or dark-colored (solid, semi-solid or viscous) cementitious substances, natural or manufactured, composed principally of high molecular weight hydrocarbons, of which asphalts, tars, pitches and asphaltites are typical.

204 CUTBACK ASPHALT - An asphalt cement liquified with any solvent-VOC.

205 CUTBACK TAR - A tar liquified with any solvent-VOC.

206 DUST PALLIATIVE - A light application of cutback or emulsified asphalt for controlling loose dust.

207 EMULSIFIED ASPHALT/EMULSIFIED TAR - Any liquified asphalt or tar produced by dispersing asphalt cement or tar into water by means of high speed agitation and an emulsifying agent.

208 MEDIUM CURE CUTBACK ASPHALT - A cutback asphalt which meets ASTM specification D 2027.

209 PENETRATING PRIME COAT - The low viscosity liquid asphalt or tar applied to a relatively absorbent surface to prepare it for new superimposed construction. Prime coats do not include dust palliatives or tack coats.

210 RAPID CURE CUTBACK ASPHALT - A cutback asphalt which falls generally within the specifications of ASTM designation D 2028-76 and which generally cures more quickly than medium cure cutback asphalt.

211 SOLVENT-VOC - For the purposes of this rule, any volatile organic compound which is used with an asphalt or tar to give fluidity and other desired properties and which volatilizes at 500□ F (260□ C) or less.

212 TACK COAT - An application of liquified asphalt to an existing, relatively nonabsorbent surface to provide a thorough bond between that surface and the superimposed layer.

213 TAR - For the purposes of this rule, any non-asphalt bitumen. This includes road tar produced by distilling coal tar or blending coal-tar pitch with lighter coal-tar fractions.

Note [3]

214 VOLATILE ORGANIC COMPOUND (VOC) - Any organic compound, excluding the following organic compounds which have been designated by the EPA as having negligible photochemical reactivity: methane; ethane; methylene chloride (dichloromethane); 1,1,1-trichloroethane; trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); chlorodifluoromethane (CFC-22); 1,1,2-trichlorotrifluoroethane (CFC-113); 1,2-dichlorotetrafluoro-ethane (CFC-114); chloropentafluoroethane (CFC-115); trifluoromethane (FC-23); 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123); 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124); 1,1-dichloro-1-fluoroethane (HCFC-141b); 1-chloro-1,1-difluoroethane (HCFC-142b); pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane (HFC-134); 1,1,1,2-tetrafluoroethane (HFC-134a); 1,1,1-trifluoroethane (HFC-143a); 1,1-difluoroethane (HFC-152a); all completely fluorinated, completely saturated: alkanes, ethers and tertiary amines.

SECTION 300 - STANDARDS

301 LIMITATIONS: No person shall sell, offer for sale, use or apply the following materials for paving, construction, or maintenance of highways, streets, driveways, parking lots or for any other use to which this rule applies:

301.1 Rapid cure cutback asphalt.

301.2 Any cutback asphalt material, road oils, or tar which contains more than 0.5 percent by volume VOCs which evaporate at 500□ F (260□ C) or less using ASTM Test Method D 402-76.

301.3 Any emulsified asphalt or emulsified tar containing more than 3.0 percent by volume VOCs which evaporate at 500□ F (260□ C) or less as determined by ASTM Method D 244-89.

302 EXEMPTIONS: The provisions of this rule shall not apply to:

302.1 Asphalt that is used solely as a penetrating prime coat and which is not a rapid cure cutback asphalt. Penetrating prime coats do not include dust palliatives or tack coats.

302.2 Any asphalt/bituminous material sold in Maricopa County for shipment and use outside Maricopa County if the person claiming such exemption clearly labels each container of materials entitled to such exemption or upon request (during normal business hours) immediately provides the Control Officer with shipping records demonstrating the asphalt material is not for use within Maricopa County.

[3] This note is not part of Rule 340, but is provided as a convenience to the reader. The current list of exempted organic compounds is in Rule 100, Section 200, in the definition of Non-Precursor Organic Compound.

302.3 A person may use up to 3.0 percent solvent-VOC by volume for batches of asphalt rubber which cannot meet paving specifications by adding heat alone only if request is made to the Control Officer, who shall evaluate such requests on a case-by-case basis. The Control Officer shall not approve such requests unless complete records are kept and full information is supplied including savings realized by using discarded tires. The Control Officer shall not approve such requests when it would cause a person to exceed 1100 lbs (500 kg) usage of solvent-VOC in asphalt rubber in a calendar year unless the applicant can demonstrate that in the previous 12 months no solvent-VOC has been added to at least 95 percent by weight of all the asphalt rubber binder made by the person or caused to be made for the person. This subsection (302.3) does not apply to batches which yield 0.5 percent or less solvent-VOC evaporated using the test in subsection 502.1.

303 LABELING REQUIREMENT: On or after December 22, 1992, no person shall sell, offer for sale, manufacture or store for sale or for use within Maricopa County any emulsified or cutback asphalt product which contains more than 0.5 percent by volume solvent-VOC unless such material lot includes a designation of solvent-VOC content on data sheet(s) expressed in percent solvent-VOC by volume.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: The owner or operator of any facility subject to this rule which manufactures, mixes, stores, ships, uses or applies any asphaltic/¬bituminous material containing more than 0.5 percent by volume solvent-VOC shall keep daily records of the amount and type received, used and shipped, as well as the solvent-VOC content of this material. Safety data (MSDS) or technical data sheets shall be kept available. These records must be maintained in a readily accessible location for a minimum of three years and must be made available to the Control Officer upon verbal or written request.

502 COMPLIANCE DETERMINATION - TEST METHODS:

502.1 Solvent-VOC content of non-emulsified asphalts and tars shall be determined by American Society for Testing and Materials (ASTM) Method D 402-76. For the purposes of this rule, the end point of the distillation shall be at 500□ F (260□ C).

502.2 Solvent-VOC content of emulsified asphalts and tars shall be determined using ASTM Method D 244-89. The end point of the distillation shall be at 500□ F (260□ C).

502.3 Measurement of exempt compound content in cutback and emulsified asphalts shall be conducted and reported in accordance with ASTM Test Method D 4457-85.

~~502.4 Tests to assist in determining the solvent-VOC content of the asphaltic binder of an asphaltic concrete are: ASTM Method D 2172 "Test For Quantitative Extraction of Bitumen From Bituminous Paving Mixtures" and ASTM Method D 1856 "Test for Recovery of Asphalt from Solution by Abson Method."~~

~~Last Formatted - Fall 1997~~

**(Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 340 (Cutback and Emulsified Asphalt), as revised and adopted September 21, 1992)**

## SIP RULE 510 AIR QUALITY STANDARDS

REGULATION V AIR QUALITY STANDARDS AND AREA CLASSIFICATION
RULE 510
AIR QUALITY STANDARDS
INDEX



Revised 07/13/88
Revised 11/01/06

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION V AIR QUALITY STANDARDS AND AREA CLASSIFICATION
RULE 510
AIR QUALITY STANDARDS

SECTION 100 GENERAL

101 PURPOSE: To establish maximum limiting levels for pollutants existing in the ambient air which are necessary to protect human health and public welfare.

102 AVAILABILITY OF INFORMATION: Copies of materials referenced in Sections 310, 401.1, and 401.2 of this rule are available at 1001 North Central Avenue, Suite 400, Phoenix, AZ, 85004 or call (602) 506-6010.

~~SECTION 200 - DEFINITIONS: See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:~~

~~201 PRIMARY AMBIENT AIR QUALITY STANDARDS - The ambient air quality standards which define levels of air quality necessary, with an adequate margin of safety, to protect the public health, as determined by the Arizona Department of Environmental Quality and United States Environmental Protection Agency, and specified in this rule.~~

~~202 SECONDARY AMBIENT AIR QUALITY STANDARDS - The ambient air quality standards which define levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant, as determined by the Arizona Department of Environmental Quality and United States Environmental Protection Agency, and specified in this rule.~~

~~SECTION 300 - STANDARDS: The following are established as the primary and secondary ambient air quality standards for Maricopa County:~~

~~301 PARTICULATE MATTER - 2.5 MICRONS OR LESS (PM2.5):~~

~~301.1 Primary and Secondary Ambient Air Quality Standards for PM2.5 Annual Arithmetic Mean Concentration: The annual arithmetic mean concentration shall be 15 micrograms per cubic meter (µg/m3). The standard shall be considered attained when the annual arithmetic mean concentration, as determined in accordance with 40 CFR 50, Appendix N, is less than or equal to 15 µg/m3.~~

~~301.2 Primary and Secondary Ambient Air Quality Standards for PM2.5 24-hour Average Concentration: The 24-hour average concentration shall be 65 µg/m3. The standard shall be considered attained when the 98th percentile 24-hour concentration, as determined in accordance with 40 CFR 50, Appendix N, is less than or equal to 65 µg/m3.~~

~~302 PARTICULATE MATTER - 10 MICRONS OR LESS (PM10):~~

~~302.1 Primary and Secondary Ambient Air Quality Standards for PM10 Annual Arithmetic Mean Concentration: The annual arithmetic mean concentration shall be 50 µg/m3. The standard shall be considered attained when the expected annual arithmetic mean concentration, as determined in accordance with 40 CFR 50, Appendix K, is less than or equal to 50 µg/m3.~~

~~302.2 Primary and Secondary Ambient Air Quality Standards for PM10 24-hour Average Concentration: The 24-hour average concentration shall be 150 µg/m3. This concentration shall not be exceeded more than once per calendar year at any one location. The standard shall be considered attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3, as determined in accordance with 40 CFR 50, Appendix K, is less than or equal to 1.~~

~~303 SULFUR OXIDES (SULFUR DIOXIDE):~~

303.1 Primary Ambient Air Quality Standards for Sulfur Oxides (Measured as Sulfur Dioxide):

a. Annual Arithmetic Mean Concentration: The annual arithmetic mean concentration shall be 0.030 parts per million (ppm) (80 µg/m3). This concentration shall not be exceeded in a calendar year. The annual arithmetic mean shall be rounded to three decimal places (fractional parts equal to or greater than 0.0005 ppm shall be rounded up).

b. 24-hour Concentration: The maximum 24-hour concentration shall be 0.14 ppm (365 µg/m3). This concentration shall not be exceeded more than once per calendar year at any one location. The 24-hour averages shall be determined from successive nonoverlapping 24-hour blocks starting at midnight each calendar day and shall be rounded to two decimal places (fractional parts equal to or greater than 0.005 ppm shall be rounded up).

303.2 Secondary Ambient Air Quality Standard for Sulfur Oxides (Measured as Sulfur Dioxide) 3-Hour Concentration: The maximum 3-hour concentration shall be 0.5 ppm (1300 µg/m3). This concentration shall not be exceeded more than once per calendar year at any one location. The 3-hour averages shall be determined from successive nonoverlapping 3-hour blocks starting at midnight each calendar day and shall be rounded to 1 decimal place (fractional parts equal to or greater than 0.05 ppm shall be rounded up).

304 OZONE:

Primary and Secondary Ambient Air Quality Standards for Ozone Eight-hour Average Concentration: The daily maximum eight-hour average concentration shall be 0.08 ppm. The standard shall be considered attained at an ambient air quality monitoring site when the average of the annual fourth-highest daily maximum eight-hour average ozone concentration, as determined in accordance with 40 CFR 50, Appendix I, is less than or equal to 0.08 ppm.

305 CARBON MONOXIDE:

305.1 Primary Ambient Air Quality Standards for Carbon Monoxide:

a. One-hour Average Concentration: The maximum one-hour average concentration shall be 35 ppm (40 mg/m3). This concentration shall not be exceeded more than once per year at any one location.

b. Eight-hour Average Concentration: The maximum eight-hour average concentration shall be 9 ppm (10 mg/m3). This concentration shall not be exceeded more than once per year at any one location. An eight-hour average shall be considered valid if at least 75% of the hourly averages for the eight-hour period are available. In the event that only six or seven hourly averages are available, the eight-hour average shall be computed on the basis of the hours available using 6 or 7 as the divisor.

305.2 When summarizing data for comparison with the standards, averages shall be stated to one decimal place. Comparison of the data with the levels of the standards in ppm shall be made in terms of integers with fractional parts of 0.5 or greater rounding up.

306 NITROGEN DIOXIDE:

Primary and Secondary Ambient Air Quality Standards for Nitrogen Dioxide Annual Arithmetic Mean Concentration: The annual arithmetic mean concentration shall be 0.053 ppm (100 µg/m3). The standard shall be considered attained when the annual arithmetic mean concentration in a calendar year is less than or equal to 0.053 ppm, rounded to three decimal places, with fractional parts equal to or greater than 0.0005 ppm rounded up. To demonstrate attainment, an annual mean shall be based upon hourly data that is at least 75% complete, or upon data derived from manual methods that is at least 75% complete for the scheduled sampling days in each calendar quarter.

307 LEAD:

Primary and Secondary Ambient Air Quality Standards for Lead Quarterly Maximum Arithmetic Mean Concentration: The maximum arithmetic mean concentration for lead and its compounds, measured as elemental lead, shall be 1.5 µg/m3, as averaged over a calendar quarter.

308 POLLUTANT CONCENTRATION DETERMINATIONS: Pollutant concentrations shall be measured by the following methods:

308.1 Appendices to 40 CFR 50: Pollutant concentrations shall be measured by the following appendices to 40 CFR 50:

| Pollutant | 40 CFR 50 |
|---|---|
| Particulate Matter (PM2.5) | Appendix L |
| Particulate Matter (PM10) | Appendix J |
| Sulfur Oxides (Sulfur Dioxide) | Appendix A |
| Ozone | Appendix D |
| Carbon Monoxide | Appendix C |
| Nitrogen Dioxide | Appendix F |
| Lead | Appendix G |

308.2 Reference or Equivalent Methods: Pollutant concentrations shall also be measured by:

a. A method of measurement that has been designated as a reference or equivalent method by the Administrator acting pursuant to 40 CFR 53; or

b. A method of measurement that, though not designated as a reference or equivalent method, has been approved for use by the Administrator acting pursuant to 40 CFR 58, Appendix C. Such method shall be subject to any restrictions placed on its use by the Administrator.

308.3 Method Withdrawal: The cancellation or supersession of designation of a reference or equivalent method by the Administrator acting pursuant to 40 CFR 53.11 or

53.16, shall also amount to a withdrawal of the authorization for use of that method for purposes of this regulation.

309 ADDITIONAL REQUIREMENTS:

309.1 Quality assurance, monitor siting, and sample probe installation procedures shall be in accordance with the procedures described in the Appendices to 40 CFR 58.

309.2 Unless otherwise specified, interpretation of all ambient air quality standards contained in this rule shall be in accordance with 40 CFR 50.

309.3 The evaluation of air quality data in terms of procedure, methodology, and concept is to be consistent with methods described in 40 CFR 50.

310 INCORPORATIONS BY REFERENCE: The CFR references listed below are incorporated by reference in Appendix G of these rules:

40 CFR 50;
40 CFR 50, Appendices A through N;
40 CFR 53;
40 CFR 58.26 and 40 CFR 58.50; and
40 CFR 58, all appendices.

SECTION 400 ADMINISTRATIVE REQUIREMENTS

401 REPORTING OF AMBIENT AIR QUALITY MONITORING DATA:

401.1 Annual Air Quality Monitoring Report: The Control Officer shall submit to the Administrator an annual summary report that at a minimum meets the requirements of 40 CFR 58.26 and 40 CFR 58, Appendix F. The annual report will be made available to the public at the address listed in Section 102 of this rule.

401.2 Daily Air Quality Index (AQI) Report: The Control Officer shall report to the general public an AQI that at a minimum meets the requirements of 40 CFR 58.50 and 40 CFR 58, Appendix G. The AQI will also be made available to the public at the address listed in Section 102 of this rule.

SECTION 500 MONITORING AND RECORDS (NOT APPLICABLE)

**(Maricopa County Air Pollution Control Regulations, Regulation V- Air Quality Standards And Area Classification, Rule 510 (Air Quality Standards), as revised and adopted November 1, 2006)**

## APPENDIX 4: MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS REQUESTED TO BE APPROVED BY THE EPA INTO THE ARIZONA SIP

**For the purpose of this document ONLY, underlines indicate the rules that are requested to be approved by the EPA into the Arizona SIP. No revisions were made to the regulations in this request to the EPA to update the Arizona SIP.**

All of these rules are readily accessible at http://www.maricopa.gov/1951/Adopted-Rules38T. Rules identified with an asterisk (*) are not included in this appendix. The "*" rules were submitted to the EPA on May 19, 2016, as part of the New Source Review (NSR) SIP or with the Ozone SIP on December 19, 2016. The rules that were not submitted with either the NSR or Ozone SIP are included in their entirety below.

*Regulation I-General Provisions, Rule 100 (General Provisions and Definitions) as revised and adopted February 3, 2016

*Regulation II-Permits and Fees, Rule 210 (Title V Permit Provisions) as revised and adopted February 3, 2016

*Regulation II-Permits and Fees, Rule 220 (Non-Title V Permit Provisions) as revised and adopted February 3, 2016

*Regulation II-Permits and Fees, Rule 230 (General Permits) as revised and adopted February 3, 2016

Regulation II-Permits and Fees, Rule 245 (Continuous Source Emission Monitoring) as revised and adopted November 15, 1993

Regulation III-Control of Air Contaminants, Rule 313 (Incinerators, Burn-Off Ovens, and Crematories) as revised and adopted May 9, 2012

*Regulations III-Control of Air Contaminants, Rule 322 (Power Plant Operations) as revised and adopted November 2, 2016

*Regulations III-Control of Air Contaminants, Rule 323 (Fuel Burning Equipment from Industrial/Commercial/Institutional (ICI) Sources) as revised and adopted November 2, 2016

Regulations III-Control of Air Contaminants, Rule 330 (Volatile Organic Compounds) as revised and adopted September 25, 2013

Regulations III-Control of Air Contaminants, Rule 331 (Solvent Cleaning) as revised and adopted September 25, 2013

Regulations III-Control of Air Contaminants, Rule 333 (Petroleum Solvent Dry Cleaning) as revised and adopted September 25, 2013

Regulations III-Control of Air Contaminants, Rule 335 (Architectural Coatings) as revised and adopted September 25, 2013

*Regulations III-Control of Air Contaminants, Rule 336 (Surface Coating Operations) as revised and adopted November 2, 2016

Appendix A (Fossil Fuel-Fired Steam Generators), as adopted July 13, 1988

**For the purpose of this document ONLY, underlines indicate the rules that are requested to be included in the Arizona SIP. No revisions were made to the current Maricopa County Air Quality Regulations in this request to the EPA to update the Arizona SIP.**

REGULATION II - PERMITS AND FEES
RULE 245
CONTINUOUS SOURCE EMISSION MONITORING
INDEX



Revised 07/13/88
Repealed and Adopted 11/15/93

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION II PERMITS AND FEES
RULE 245

CONTINUOUS SOURCE EMISSION MONITORING

SECTION 100 GENERAL

101 PURPOSE: To set forth continuous source emission monitoring requirements for fossil fuel fired generators, nitric acid plants, sulfuric acid plants and fluid bed catalytic cracking units.

102 APPLICABILITY: This rule applies to:

102.1 Fossil fuel fired steam generators, as specified in Section 302.1 of this rule, which shall be monitored for opacity emissions, nitrogen oxides emissions, sulfur dioxide emissions and oxygen or carbon dioxide.

102.2 Nitric acid plants, as specified in Section 302.2 of this rule, which shall be monitored for nitrogen oxides emissions.

102.3 Sulfuric acid plants, as specified in Section 302.3 of this rule, which shall be monitored for sulfur dioxide emissions.

102.4 Fluid bed catalytic cracking unit catalyst regenerators, as specified in Section 302.4 of this rule, which shall be monitored for sulfur dioxide emissions.

SECTION 200 DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

201 CAPACITY FACTOR The ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.

202 CONTINUOUS MONITORING SYSTEM The total equipment required under Section 302 of this rule to sample and analyze emissions or process parameters and to provide a permanent data record.

203 EMISSION STANDARD A regulation (or portion thereof) setting forth an allowable rate of emission, level of opacity, or prescribing equipment or fuel specifications that result in control of air pollution emissions.

204 FOSSIL FUEL FIRED STEAM GENERATOR A furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

205 NITRIC ACID PLANT Any source producing nitric acid 30 to 70 percent in strength by either the pressure or atmospheric pressure process.

206 SULFURIC ACID PLANT Any source producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge. This does not include sources where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

SECTION 300 STANDARDS

301 EQUIPMENT INSTALLATION AND PERFORMANCE TESTS: Every owner or operator of an emission source in a category described in Section 102 of this rule shall:

301.1 Install, calibrate, operate, and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified in this rule, and

301.2 Complete the installation and performance tests of such equipment and begin monitoring and recording within 18 months of plant approval.

302 MINIMUM MONITORING REQUIREMENTS:

302.1 Fossil Fuel Fired Steam Generators: Each fossil fuel fired steam generator, except as provided in Sections 302.1a and 302.1b of this rule, with an annual average capacity factor greater than 30 percent as reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to the Control Officer by the owner or operator, shall conform with the following monitoring requirements when such source is subject to an emission standard of an applicable plan for the pollutant in question.

a. A continuous emission monitoring system for the measurement of opacity which meets the performance specifications of Section 303.1 of this rule shall be installed, calibrated, maintained, and operated in accordance with the procedures of this rule by the owner or operator of any such steam generator of greater than 250 million BTU per hour heat input except where:

(1) Gaseous fuel is the only fuel burned, or

(2) Oil or a mixture of gas and oil are the only fuels burned and the source is able to comply with the applicable particulate matter and opacity regulations without utilization of particulate matter collection equipment, and where the source has never been found through any administrative or judicial proceedings to be in violation of any visible emission standard of the applicable plan.

b. A continuous emission monitoring system for the measurements of sulfur dioxide which meets the performance specifications of Section 303.3 of this rule, shall be installed, calibrated, using sulfur dioxide calibration gas mixtures, gas cells or other gas mixtures approved by the Control Officer, maintained, and operated on fossil fuel fired steam generators of greater than 250 million BTU per hour heat input which has installed sulfur dioxide pollutant control equipment.

c. A continuous emission monitoring system for the measurement of nitrogen oxides which meets the performance specification of Section 303.2 of this rule shall be installed, calibrated, using nitric oxide calibration gas mixtures, gas cells or other gas mixtures approved by the Control Officer, maintained, and operated on fossil fuel fired steam generators of greater than 1000 million BTU per hour heat input when such source is located in an air quality control region where the Control Officer has specifically determined that a control strategy for nitrogen dioxide is necessary to attain the national standards, unless the source owner or operator demonstrates during source compliance tests as required by the Control

Officer that such a source emits nitrogen oxides at levels 30 percent or more below the emission standard within the applicable plan.

d. A continuous emission monitoring system for the measurement of the percent oxygen or carbon dioxide which meets the performance specifications of Sections 303.4 and 303.5 of this rule shall be installed, calibrated, operated, and maintained on fossil fuel fired steam generators where measurements of oxygen or carbon dioxide in the flue gas are required to convert either sulfur dioxide or nitrogen oxides continuous emission monitoring data, or both, to units of the emission standard within the applicable plan.

302.2 Nitric Acid Plants: Each nitric acid plant of greater than 300 tons per day production capacity, the production capacity being expressed as 100 percent acid, located in an air quality control region where the Control Officer has specifically determined that a control strategy for nitrogen dioxide is necessary to attain the national standard, shall install, calibrate, maintain, and operate a continuous emission monitoring system for the measurement of nitrogen oxides which meets the performance specifications of Section 303.2 of this rule for each nitric acid producing source within such plant.

302.3 Sulfuric Acid Plants: Each sulfuric acid plant of greater than 300 tons per day production capacity, the production being expressed as 100 percent acid, shall install, calibrate, maintain and operate a continuous emission monitoring system for the measurement of sulfur dioxide which meets the performance specifications of Section 303.3 of this rule for each sulfuric acid producing source within such plant.

302.4 Fluid Bed Catalytic Cracking Unit Catalyst Regenerators at Petroleum Refineries: Each catalyst regenerator for fluid bed catalytic cracking units of greater than 20,000 barrels per day fresh feed capacity shall install, calibrate, maintain, and operate a continuous emission monitoring system for the measurement of opacity which meets the performance specifications of Section 303.1 of this rule.

303 MINIMUM SPECIFICATIONS FOR MONITORING EQUIPMENT: Owners or operators of monitoring equipment installed to comply with this rule shall demonstrate compliance with the performance specifications set forth in Appendix B of Part 60, Chapter 1, Title 40, CFR as amended, incorporated herein by reference. However, where reference is made to the Administrator in Appendix B of 40 CFR 60, the Control Officer may allow the use of either the state approved reference method or the federally approved reference method as published in 40 CFR 60. The performance specifications to be used with each type of monitoring system are listed below.

303.1 Continuous emission monitoring systems for measuring opacity shall comply with performance specification 1.

303.2 Continuous emission monitoring systems for measuring nitrogen oxides shall comply with performance specification 2.

303.3 Continuous emission monitoring systems for measuring sulfur dioxide shall comply with performance specification 2.

303.4 Continuous emission monitoring systems for measuring oxygen shall comply with performance specification 3.

303.5 Continuous emission monitoring systems for measuring carbon dioxide shall comply with performance specification 3.

304 MINIMUM DATA REQUIREMENTS:

304.1 The owners or operators of sources required to install continuous emission monitoring systems shall submit to the Control Officer a written report of excess emissions for each calendar quarter and the nature and cause of the excess emissions, if known. The averaging period used for data reporting shall correspond to the averaging period specified in the emission standard for the pollutant source category in question. The required report shall include, as a minimum, the data stipulated in this rule.

304.2 For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of all six minute opacity averages greater than any applicable standards in these rules for each hour of operation of the source. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. Any time periods exempted shall be deleted before determining any averages in excess of opacity standards.

304.3 For gaseous measurements the summary shall consist of emission averages in the units of the applicable standard for each averaging period during which the applicable standard was exceeded.

304.4 The date and time identifying each period during which the continuous emission monitoring system was inoperative, except for zero and span checks and the nature of system repair or adjustment shall be reported. The Control Officer may require proof of continuous emission monitoring system performance whenever system repairs or adjustments have been made.

304.5 When no excess emissions have occurred and the continuous emission monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.

304.6 Owners or operators of affected sources shall maintain a file of all information reported in the quarterly summaries, and all other data collected either by the continuous emission monitoring system or as necessary to convert monitoring data to the units of the applicable standard for a minimum of two years from the date of collection of such data or submission of such summaries.

305 MONITORING EQUIPMENT OPERATING REQUIREMENTS: The owner, lessee, or operator shall provide, install, calibrate, maintain and operate air contaminant monitoring

devices as are reasonable and required pursuant to these Regulations to determine compliance in a manner acceptable to the Control Officer.

306 EXEMPTIONS: The provisions of this rule shall not apply to any source which is:

306.1 Subject to a New Source Performance Standard promulgated in 40 CFR part 60;

306.2 Not subject to an applicable emission standard of the approved State Implementation Plan; or

306.3 Scheduled for retirement within five years after inclusions of monitoring requirements for the source in these Regulations, provided that adequate evidence and guarantees are provided that clearly show that the source will cease operations prior to such date.

306.4 A temporary exemption from the monitoring and reporting requirements of this rule may be provided during any period of monitoring system malfunction, provided that the source owner or operator shows to the satisfaction of the Control Officer that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

307 SPECIAL CONSIDERATION: The Control Officer may approve, on a case by case basis, alternative monitoring requirements different from the provisions of Sections 301 through 305 of this rule if the installation of a continuous emission monitoring system cannot be implemented by a source due to physical plant limitations or extreme economic reasons. Alternative monitoring procedures shall be specified by the Control Officer on a case by case basis and shall include as a minimum annual manual stack tests for the pollutants identified for each type of source in this rule. Examples of such special cases include, but are not limited to, the following:

307.1 Alternative monitoring requirements may be prescribed when installation of a continuous emission monitoring system or monitoring device specified by this rule would not provide accurate determinations of emissions (e.g. condensed, uncombined water vapor may prevent an accurate determination of opacity using commercially available continuous emission monitoring systems).

307.2 Alternative monitoring requirements may be prescribed when the affected source is infrequently operated (e.g. some affected sources may operate less than one month per year).

SECTION 500 MONITORING AND RECORDS

501 DATA REDUCTION: Owners or operators of affected sources shall use the procedures described in Appendix A for converting monitoring data to units of the standard where necessary.

502 MONITORING DATA REQUIRED: Monitoring information shall be provided in writing to the Control Officer as directed.

503 MONITORING EQUIPMENT INSPECTIONS: Air pollutant monitoring devices shall be available for inspection by the Control Officer during all reasonable times (ARS §49-487).

504 TRANSMISSOMETER RESULTS: The results of continuous transmissometer monitoring which indicate opacity was not in excess of the standard at the time of an alleged violation from visual observations are probative but not conclusive evidence of the actual opacity of an emission. The owner or operator of a source shall meet the burden of providing proof that the transmissometer used meets performance specification 1 in the Arizona Testing Manual for Air Pollutant Emissions, and that the instrument has been properly maintained and calibrated, and the resulting data have not been tampered with in any way.

**(Maricopa County Air Pollution Control Regulation II, Rule 245 (Continuous Source Emission Monitoring). Repealed and adopted by the Board on November 15, 1993)**

**SIP RULE 330: VOLATILE ORGANIC COMPOUNDS**

REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 330
VOLATILE ORGANIC COMPOUNDS
INDEX



Revised 07/13/88
Revised 09/21/92
Revised 06/19/96
Revised 09/25/13

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 330
VOLATILE ORGANIC COMPOUNDS

SECTION 100 – GENERAL

101 PURPOSE: To limit emissions of volatile organic compounds into the atmosphere that may result from the use of organic solvents or processes that emit volatile organic compounds.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 DAY: A period of 24 consecutive hours beginning at midnight.

202 NON-COMPLYING SOLVENT: A solvent which exceeds the applicable percentage composition limit for any of the four chemical groupings listed below.

202.1 Group I: One or more of the following families of compounds having the olefinic or cyclo-olefinic type of unsaturation − hydrocarbons, alcohols, aldehydes, esters, ethers, and/or ketones; except perchloroethylene: 5 percent by volume.

202.2 Group II: One or more aromatic compounds having eight or more carbon atoms to the molecule except ethylbenzene, methyl benzoate, and phenyl acetate: 8 percent by volume.

202.3 Group III: One or more of the following compounds and compound types −ketones having a branched hydrocarbon structure, ethylbenzene, trichloroethylene, and/or toluene: 20 percent by volume.

202.4 An aggregate of any combination of the above three groups: 20 percent by volume.

202.5 Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it shall be considered a member of the most reactive chemical group that it can be classified into, that is, that group having the lowest percentage composition limit.

203 ORGANIC COMPOUND: Any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, carbonates, and metallic carbides.

204 ORGANIC SOLVENT: Any organic compound which is liquid at actual conditions of use or storage and which is used as a diluent, thinner, dissolver, viscosity reducer, extractant, cleaning agent or is a reactant or product in a manufacturing process.

SECTION 300 – STANDARDS

301 LIMITATIONS–OPERATIONS INVOLVING HEAT: No person shall discharge more than 15 pounds (6.8 kg) of volatile organic compounds into the atmosphere in any one day from any machine, equipment, device, or other article in which any volatile organic compound or any material containing a volatile organic compound comes into contact with flame or is evaporated at temperatures exceeding 200°F (93.3°C), in the presence of oxygen, unless the entire amount of such discharge has been reduced in accordance with Section 304 of this rule.

302 LIMITATIONS–NON-COMPLYING SOLVENTS: Excluding emissions subject to Section 301 above, no person shall discharge more than 40 pounds (18 kg) of volatile organic compounds into the atmosphere in any one day from any machine, equipment, device or other article for employing, applying, evaporating or drying any non-complying solvent (as defined in Section 202 of this rule) or material containing such non-complying solvent, unless the entire amount of such discharge has been reduced in accordance with Section 304 of this rule.

303 LIMITATIONS–PROCESS LINES: Emissions of VOCs from any series of machines, equipment, devices or other articles which are designed for processing any item including but not limited to continuous web(s), strip(s), or wire(s) and which use operations described in Sections 301 and/or 302 of this rule shall be collectively subject to the limitations of and compliance with those sections.

304 REDUCTIONS REQUIRED: Emission to the atmosphere of volatile organic compounds requiring control pursuant to Section 301 or 302 of this rule shall be reduced by at least one of the following methods:

304.1 Incineration, provided that 90 percent or more of the carbon in the volatile organic compounds entering the incineration device is oxidized to carbon dioxide and overall control efficiency (capture plus processing) is at least 85 percent by weight; or

304.2 Adsorption, provided that overall control efficiency (capture plus processing) is at least 85 percent by weight; or

304.3 Using low VOC material containing no more than 20 percent VOC by volume (as determined by the applicable test method(s) and excluding non-precursor organic compounds and water), provided that no VOC from the material comes into contact with flame; or

304.4 Processing in a manner not less effective than in subsection 304.1 or 304.2 of this rule and verified by test methods of this rule.

304.5 The owner or operator using an emissions control device to reduce emissions in accordance with this section shall provide the Control Officer with an Operation and Maintenance (O&M) Plan. This plan shall specify key system operating parameters, such as temperatures, pressures and/or flow rates, necessary to determine compliance with this rule and describe in detail procedures to maintain the approved emission control system. The Control Officer's written approval of this plan shall be required for compliance with this rule to be achieved.

305 EQUIPMENT CLEANUP: A person shall not use any liquid materials containing more than 10 percent volatile organic compounds for the cleanup of equipment unless:

305.1 The used cleaning liquids are collected in a container which is closed when not in use and is disposed of in a manner such that volatile organic compounds are not emitted into the atmosphere, or

305.2 The equipment is disassembled and cleaned in a solvent vat which is closed when not in use, or cleaning is done by other methods, approved in writing by the Control Officer, which limit evaporation.

306 VOC CONTAINMENT AND DISPOSAL: No person shall store, discard, or dispose of VOC or VOC-containing material in a way intended to cause or to allow the evaporation of VOC to the atmosphere. Reasonable measures shall be taken to prevent such evaporation which include but are not limited to the following:

306.1 All materials from which VOC can evaporate, including fresh solvent, waste solvent and solvent-soaked rags and residues, shall be stored in closed containers when not in use; and

306.2 Such containers one gallon and larger shall be legibly labeled with their contents; and

306.3 Records of the disposal/recovery of such materials shall be kept. Records of hazardous waste disposal shall be kept in accordance with hazardous waste disposal statutes.

307 EXEMPTIONS: The provisions of this rule shall not apply to:

307.1 Organic solvent manufacturing facilities and the overland transport of organic solvents and materials containing VOC.

307.2 The use of equipment, materials, and/or substances which meet applicable requirements and standards specified by other rules of Regulation III.

307.3 The spraying or other employment of insecticides, pesticides or herbicides.

307.4 Foundries; smelters; melting or roasting of metal, ore, or dross; all operations included under Standard Industrial Classification codes 3312, 3313, 332, 333, 334, 336, and 3398; and all on-site mold making activities at such operations and industries.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE: Any person employing a control device as of September 21, 1992, to meet the emissions reductions requirement of this rule shall by November 20, 1992, file an Operation and Maintenance Plan with the Control Officer pursuant to Section 501 of this rule.

SECTION 500 – MONITORING AND RECORDS

501 PROVIDING AND MAINTAINING MONITORING DEVICES: Any person incinerating, adsorbing, or otherwise processing organic materials pursuant to this rule shall provide, properly install and maintain in calibration, in good working order and in operation, devices specified in the Operation and Maintenance Plan as well as in either the Permit to Operate or the Installation Permit for indicating temperatures, pressures, rates of flow, or

other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained.

502 DETERMINATION OF COMPLIANCE: Determination of the organic solvent content and composition of a solvent or material shall be made as of the time that the solvent or material is in its final form for application or employment, notwithstanding any prior blending, reducing, thinning or other preparation for application or employment. Emissions resulting from air or heat drying of products for the first 12 hours after the removal from any machine, equipment, device or other article shall be included in determining compliance with this rule.

503 RECORDKEEPING AND REPORTING: Any person subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.

503.1 Current List: Maintain a current list of coatings, adhesives, makeup solvents, and any other VOC-containing materials; state the VOC content of each in pounds per gallon or grams per liter. VOC content shall be expressed less water and non-precursor compounds for materials which are not used for cleaning or cleanup.

503.2 Monthly Usage Records: Maintain monthly records of the amount of each coating; adhesive; makeup solvent; solvent used for surface preparation, for cleanup, and for the removal of materials; and any other VOC-containing material used. Identify any materials subject to the emission limits in Section 301 or Section 302 and keep separate totals for these materials.

503.3 Operation and Maintenance: Maintain a continuous record of the times an approved emission control device is used to comply with this rule. Maintain daily records of the O&M Plan's key system operating parameters. Account for any periods of operation when the control device was not operating. Maintain records of all maintenance performed according to the O&M Plan.

503.4 Discarded Materials: Maintain records of the type, amount, and method of disposing of VOC-containing materials on each day of disposal.

504 TEST METHODS:

504.1 Measurement of VOC content of materials shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

504.2 The non-complying organic compound content shall be determined using the ASTM Standard Recommended Practices for General Gas Chromatography Procedures, E 260-85; General Techniques of Infrared Quantitative Analysis, E 168-67; or General Techniques of Ultraviolet Quantitative Analysis, E 169-87.

504.3 Measurements of the water and exempt solvent vapor content shall be conducted in accordance with ASTM Test Methods D 4457-85 and D 3792-86.

504.4 Measurement of VOC emissions subject to this rule shall be conducted in accordance with EPA Test Method 18 and/or by EPA Method 25 or an applicable sub-method of Method 25 (40 CFR 60, Appendix A), in combination with the appropriate capture efficiency method.

504.5 Capture/control efficiency shall be determined by mass balance in combination with ventilation/draft rate determinations or by "Using a Temporary Total Enclosure for Capture Efficiency Testing", EPA-450/4-91-020.

504.6 Ventilation/draft rates shall be determined by EPA Methods 2, 2a, 2c, and 2d.

504.7 Temperature measurements shall be done with an instrument with an accuracy and precision of less than one-half degree Fahrenheit (0.25°C) for temperatures up to 480°F (250°C). Higher temperatures shall be determined by instruments no less accurate than 1.0 percent of full scale unless the Control Officer specifies greater accuracy.

**(Maricopa County Air Pollution Control Regulation III, Rule 330 (Volatile Organic Compounds). Revised and adopted by the Board on September 25, 2013)**

**SIP RULE 331: SOLVENT CLEANING**

REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 331
SOLVENT CLEANING
INDEX

Revised 07/13/88
Revised 06/22/92
Revised 06/19/96
Revised 04/07/99
Revised 04/21/04
Revised 09/25/13

# MARICOPA COUNTY
# AIR POLLUTION CONTROL REGULATIONS
# REGULATION III – CONTROL OF AIR CONTAMINANTS
# RULE 331
# SOLVENT CLEANING

## SECTION 100 – GENERAL

101 PURPOSE: To limit the emissions of volatile organic compounds (VOCs) from cleaning operations.

102 APPLICABILITY: This rule is applicable to operations using VOC-containing solvents to remove impurities from exterior or interior surfaces. Compliance with the provisions of this rule shall not relieve any person subject to the requirements of this rule from complying with any other federally enforceable requirements. In such case, the more stringent requirement shall apply. In any instance where more than one of the requirements set forth in this rule may be applicable, the most restrictive requirement shall apply.

102.1 Solvents regulated by this rule may also be regulated by New Source Performance Standards (NSPS) in Rule 360 of these rules and/or National Emission Standards for Hazardous Air Pollutants (NESHAPs) in Rule 370 of these rules.

102.2 This rule is not applicable to:

a. A solvent cleaning operation that is subject to or specifically exempted by an EPA approved version of another rule within Regulation III of these rules.

b. Janitorial cleaning.

c. Testing for surface cleanliness or the cleaning of laboratory equipment at the laboratory.

d. A cleaning-solvent that meets any of the following:

(1) Is composed of at least 98% water by either weight or volume; or

(2) Contains only water and material which is a dry solid before mixing with water; or

(3) Has a VOC content not exceeding 20 grams per liter (0.17 lb/gal).

102.3 Partial or conditional exemptions from this rule are set forth in Section 308 of this rule.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 AGITATION, AGITATED: A means or state that moves cleaning liquid continuously back and forth, or up and down. This includes such motion created by sound waves, and to the splashing of a rinse stream operated at a pressure that creates a trajectory exceeding 2 feet along the horizontal plane intersecting the nozzle when the nozzle is at a 45° angle above the plane. Liquid motion incidental to a continuous entrance or withdrawal of objects undergoing cleaning is not agitation.

202 BATCH CLEANING MACHINE: A solvent cleaning machine in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the solvent cleaning machine. A solvent cleaning machine, such as a ferris wheel or a cross-rod degreaser, that cleans multiple batch loads simultaneously and is manually loaded, is a batch cleaning machine.

203 BLASTING/MISTING WITH SOLVENT: Cleaning with an applicator that propels cleaning-solvent through the air with a pressure exceeding 10 psig (516 mm Hg), or that atomizes the solvent into mist and/or droplets.

204 CABINET STYLE CLEANING MACHINES: Cleaning machines typically similar in design to domestic dishwashers that are completely enclosed except for optional stack, and have their own reservoir and sump.

205 CARRY-OUT: Solvent carried out of a cleaning machine along with a part being removed from the cleaning machine. The solvent may exist as a liquid coating the part or the part's hanger, or as a liquid entrapped in cavities and irregular surfaces, or entrapped by capillary action within or on the part.

206 CLEANING-SOLVENT: Solvent used for cleaning that contains more than 2.0% VOC by weight and more than 20 grams of VOC per liter (0.17 lb/gal).

207 CONFORMING SOLVENT: A cleaning-solvent having a total VOC vapor pressure at 68°F (20°C) not exceeding 1 millimeter of mercury column.

208 DEGREASER: See SOLVENT CLEANING MACHINE.

209 DRY SOLID: Any substance that appears and feels dry. Evaporating solids, all of which have a strong odor, are not included.

210 EMISSION CONTROL SYSTEM (ECS): A system for reducing emissions of volatile organic compounds, consisting of both a capture system and control device(s).

211 FLUSHING WITH SOLVENT: Introducing cleaning-solvent directly into the internal space(s) of an object or assembly using a hose or pipe. Rinsing the outside of an object or assembly and swishing an object or assembly in cleaning solvent are not considered flushing with solvent. Such activities must comply with Section 303.1 of this rule.

212 FREEBOARD HEIGHT:

212.1 Batch Cleaning Machine: The vertical distance from the solvent/air interface to the least elevated point of the top-rim when the cover is open or removed, measured during idling mode.

212.2 In-Line Cleaning Machine: The vertical distance from the solvent/air interface to the lowest entry/exit point, measured during idling mode.

213 FREEBOARD RATIO: The ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.

214 HEATED SOLVENT: Any cleaning-solvent which is heated by a device to a temperature exceeding 120°F (49°C).

215 IMPERVIOUS: Neither absorbing, adsorbing, nor allowing penetration through, by liquid or vapors.

216 IN-LINE CLEANING MACHINE (CONTINUOUS CLEANING MACHINE): A solvent cleaning machine that uses an automated handling system, typically a conveyor or automated arm(s), to automatically provide a continuous supply of items to be cleaned. The cleaned item leaves by a route different from its entry route.

217 JANITORIAL CLEANING: The cleaning of building or facility components to keep work areas in clean condition. Building or facility components include, but are not limited to,

floors, ceilings, walls, windows, doors, stairs, bathrooms, furnishings, textiles, wash rags, uniforms, and exterior surfaces of office equipment.

218 LEAK: The state or condition in which a cleaning-solvent, excluding a Low-VOC Cleaner, is allowed to seep or drip, or otherwise enters or escapes, at either of the following rate or magnitude:

218.1 Three or more drops of liquid cleaning-solvent per minute; or

218.2 Any puddle of cleaning-solvent greater than 1 square inch.

219 LOW-VOC CLEANER: Any solution or homogeneous suspension that, as used, contains less than 50 grams of VOC per liter of material (0.42 lb VOC/gal) or is at least 95% water by weight or volume as determined by an applicable test method in Section 502 of this rule.

220 MAKE-UP SOLVENT: A cleaning-solvent that replaces solvent lost through evaporation or other means, and that is added to the solvent remaining in a cleaning machine (degreaser) to bring solvent quantity to the desired level.

221 MATERIAL VOC CONTENT: See VOC CONTENT OF MATERIAL.

222 NON-CONFORMING SOLVENT: A cleaning-solvent having a total VOC vapor pressure at 68°F (20°C) exceeding 1 millimeter of mercury column.

223 ORGANIC COMPOUND: Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

224 REFRIGERATED FREEBOARD CHILLER: A control device which is mounted above any cooling-water jacket or primary condenser coils, consisting of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor/air interface to reduce emissions from the cleaning machine (degreaser) bath.

225 REMOTE RESERVOIR CLEANING MACHINE (DEGREASER): Any non-vapor cleaning machine (degreaser) in which the reservoir for storing the cleaning-solvent is completely separated by impervious surfaces from the sink or basin where cleaning is performed, except for a connecting tube through which solvent returns to the reservoir when cleaning is stopped.

226 SEALED SYSTEM: An Air-tight or Airless Cleaning System that is operated and equipped pursuant to Section 304.3 of this rule.

227 SOLVENT: For the purpose of this rule, any liquid or vapor which is used to dissolve, clean, strip, or remove impurities, coatings, contaminants, or films from surfaces or from internal spaces and voids. In addition to VOC-containing solvents, this also includes plain water and mixtures containing water.

228 SOLVENT CLEANING MACHINE (CLEANING MACHINE) (DEGREASER): Any liquid container and ancillary equipment designed to clean surfaces and/or remove surface contaminants using cleaning-solvents.

229 SOLVENT/AIR INTERFACE:

229.1 Non-Vapor Cleaner: The location of contact between the liquid solvent and the air.

229.2 Vapor Cleaner: The location of contact between the concentrated layer of solvent vapor and the air.

230 SOLVENT/AIR INTERFACE AREA:

230.1 Non-Vapor Cleaner:

a. With Included/Integral Reservoir: The surface area of liquid cleaning-solvent that is exposed to the air.

b. With Remote Reservoir: The surface area of the solvent sink or work area.

230.2 Vapor Cleaner: The area of the horizontal plane that is located halfway between the highest and lowest points of the primary condenser coils and which contacts the interior walls of the cleaning machine.

231 TOTAL VOC VAPOR PRESSURE (VOC COMPOSITE PARTIAL PRESSURE): Within a solution or homogenous mixture, it is the sum of the partial pressures of all those components that are defined as VOCs, calculated according to the formula in Section 502.3 of this rule.

232 VAPOR CLEANING MACHINE: Any cleaning machine in which solvent-vapor from boiling cleaning solvent is utilized for cleaning object.

233 VOC CONTENT OF MATERIAL (MATERIAL VOC CONTENT):

$$\text{VOC CONTENT OF MATERIAL as a percent} = \frac{W_s - W_w - W_{es}}{W_m} \text{ X } 100\%$$

Using consistently either pounds or grams in the calculations:
Where:

$W_s$ = weight of volatile material in pounds (or grams), including water, non-precursor organic compounds, and dissolved vapors.

$W_w$ = weight of water in pounds (or grams)

$W_{es}$ = total weight of non-precursor organic compounds in pounds (or grams)

$W_m$ = weight of total material in pounds (or grams)

$$\text{VOC CONTENT OF MATERIAL in pounds per gallon (g/l)} = \frac{W_s - W_w - W_{es}}{V_m}$$

Using consistently either English or metric measures in the calculations
Where:

$W_s$ = weight of all volatile material in pounds (or grams) including VOC, water, non-precursor organic compounds and dissolved vapors.

$W_w$ = weight of water in pounds (or grams)

$W_{es}$ = weight of all non-precursor compounds in pounds (or grams)

$V_m$ = volume of total material in gallons (or liters)

234 WIPE CLEANING: That method of removing contaminants from a surface by physically rubbing or automatically rubbing with a porous or absorbent material, such as a rag, paper, sponge, or cotton swab, moistened with a solvent.

SECTION 300 – STANDARDS

301 SOLVENT HANDLING REQUIREMENTS: Any person to whom this rule applies must comply with all of the following:

301.1 All cleaning-solvent, including solvent soaked materials, shall be kept in closed, leak free, impervious containers that are opened only when adding or removing material.

a. Porous or absorbent materials used for wipe cleaning shall be stored in closed containers when not in use.

b. Each container shall be clearly labeled with its contents.

301.2 If any cleaning-solvent escapes from a container:

a. Wipe up or otherwise remove immediately if in accessible areas.

b. For areas where access is not feasible during normal production, remove as soon as reasonably possible.

301.3 Unless records show that VOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.

302 EQUIPMENT REQUIREMENTS FOR ALL CLEANING MACHINES: Any person operating a cleaning machine to which this rule applies must comply with all of the following:

302.1 Provide a leak free, impervious container (degreaser) for the solvents and the articles being cleaned.

a. The VOC-containment portion shall be impervious to VOC-containing liquid and vapors.

b. No surface of any freeboard required by this rule shall have an opening or duct through which VOC can escape to the atmosphere, except as controlled by an ECS, or as required by OSHA.

302.2 Properly maintain and operate all cleaning machine equipment required by this rule and any of its emission controls required by this rule.

303 SPECIFIC OPERATING & SIGNAGE REQUIREMENTS FOR CLEANING MACHINES: Any person who cleans with cleaning-solvent other than a Low-VOC Cleaner must conform to all of the following operating requirements:

303.1 Operating Requirements:

a. Fans: Do not locate nor position comfort fans in such a way as to direct airflow across the opening of any cleaning machine.

b. Cover: Do not remove any device designed to cover the solvent unless processing work in the cleaning machine or maintaining the machine.

c. Draining: Drain cleaned parts for at least 15 seconds after cleaning or until dripping ceases, whichever is later.

d. Spraying: If using a cleaning-solvent spray system,

(1) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).

(2) Pressure at the orifice from which the solvent emerges shall not exceed 10 psig and shall not cause liquid solvent to splash outside of the solvent container.

(3) In an in-line cleaning machine, a shower-type spray is allowed, provided that the spraying is conducted in a totally confined space that is separated from the environment.

(4) Exceptions to foregoing Sections 303.1d(1), (2), and (3) are provided for in Section 307 of this rule.

e. Agitation: No person shall cause agitation of a cleaning-solvent in a cleaning machine by sparging with air or other gas. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds 15 seconds.

f. No Porous Material:

(1) Do not clean nor use porous or absorbent materials to clean parts or products in a cleaning machine. For the purpose of this rule, porous or absorbent materials include, but are not limited to, cloth, leather, wood, and rope.

(2) Do not place an object with a sealed wood handle, including a brush, in or on a cleaning machine.

(3) Do not place porous or absorbent materials, including, but not limited to, cloth, leather, wood, and rope on a cleaning machine.

g. Vent Rates: The ventilation rate at the cleaning machine shall not exceed 65 cfm per square foot of evaporative surface (20 m3/min./m2), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation, to meet health and safety requirements.

h. Hoist Speed: Limit the vertical speed of mechanical hoists moving parts in and out of the cleaning machine to a maximum of 2.2 inches per second and 11 ft/min. (3.3 m/min.).

i. Contamination Prevention: Prevent cross contamination of solvents regulated by Section 304 of this rule with solvents that are not so regulated. Use signs, separated work-areas, or other effective means for this purpose. This includes those spray gun cleaning solvents that are regulated by another rule of these rules.

j. Filtration Devices: If a filtration device (e.g., to remove oils, greases, sludge, and fine carbon from cleaning solvent) is inherent in the design of the cleaning machine, then such filtration device shall be operated in accordance with manufacturer's specifications and in accordance with the following requirements:

(1) The filtration device shall be fully submerged in cleaning solvent at all times during filtration.

(2) When the filtration device is completely saturated and must be removed from the cleaning machine, the filtration device shall be drained until no liquid can flow from the filtration device. Draining and drying such filtration device shall be conducted in a sealed container with no exhaust to the atmosphere or work area.

(3) After the filtration device is dry, the filtration device shall be stored in a closed, leak free, impervious container that is legibly labeled with its contents and that remains covered when not in use. Disposal of the filtration device shall be done in a manner that inhibits VOC evaporation and that is in compliance with appropriate/legal methods of disposal.

303.2 Signage Requirements: Any person who uses cleaning-solvent, other than Low-VOC Cleaner, in any solvent cleaning machine (degreaser) or dip tank shall provide on the machine, or within 3¼ feet (1 meter) of the machine, a permanent, conspicuous label or placard which includes, at a minimum, each of the following applicable instructions, or its equivalent:

a. "Keep cover closed when parts are not being handled." (This is not required for remote reservoir cleaners.)

b. "Drain parts until they can be removed without dripping."

c. "Do not blow off parts before they have stopped dripping."

d. "Wipe up spills and drips as soon as possible; store used spill rags [or 'wiping material'] in covered container."

e. "Don't leave cloth or any absorbent materials in or on this tank."

f. For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: "Operating instructions can be obtained from _____," listing a person or place where the instructions are available.

304 SOLVENT SPECIFICATIONS FOR NON-VAPOR CLEANING AND DEGREASING: [Operating requirements specifically for vapor cleaning machines are in the Appendix.] All cleaning solvents, except Low-VOC Cleaners, used in non-boiling cleaning machines shall comply with Section 304.1 or Section 304.2 or Section 304.3, as follows:

304.1 Use a cleaning-solvent having a total VOC vapor pressure at 68°F (20°C) not exceeding 1 millimeter of mercury column, as determined by the standards described in Section 500 of this rule.

304.2 ECS: Use an ECS to capture and process VOC emissions in accordance with Section IV of the Appendix within this rule; or

304.3 Sealed System: Use a Sealed System that is an Air-tight or Airless Cleaning System which is operated according to the manufacturer's specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:

a. Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle; and

b. Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use; and

c. Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out.

305 NON-VAPOR BATCH CLEANING MACHINES: Equipment requirements for non-vapor batch cleaning machines with remote reservoirs are set forth in Section 305.1 of this rule. Equipment standards applicable to non-vapor batch cleaning machines with internal reservoirs (non-remote) are set forth in Section 305.2 of this rule. Non-vapor batch cleaning machines with either remote or internal reservoirs that use cleaning-solvents that are either heated, agitated or non-conforming are subject to additional provisions set forth in Section 305.3 of this rule. Low-VOC Cleaners are exempt from this section.

305.1 With Remote Reservoir: A batch cleaning machine with remote reservoir, including cabinet type(s), shall be equipped with the following:

a. A sink-like work area or basin which is sloped sufficiently towards the drain so as to prevent pooling of cleaning-solvent.

b. A single, unimpeded drain opening or cluster of openings served by a single drain for the cleaning-solvent to flow from the sink into the enclosed reservoir. Such opening(s) shall be contained within a contiguous area not larger than 15.5 square inches (100 cm2).

c. Solvent Return: Provide a means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine.

305.2 With Internal Reservoir (Non-Remote): A batch cleaning machine without a remote reservoir shall be equipped with all of the following:

a. Have and use an internal drainage rack or other assembly that confines within the freeboard all cleaning-solvent dripping from parts and returns it to the hold of the cleaning machine (degreaser); and

b. Have an impervious cover which when closed prevents cleaning-solvent vapors in the cleaning machine from escaping into the air/atmosphere when not processing work in the cleaning machine.

(1) A cover shall be fitted so that in its closed position the cover is between the cleaning-solvent and any lip exhaust or other safety vent, except that such position of cover and venting may be altered by an operator for valid concerns of flammability established in writing and certified to by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.

(2) A cover is not required when an ECS is used in accordance with Section IV of the Appendix within this rule.

c. In the absence of additional applicable freeboard standards, freeboard height shall be not less than 6 inches (15.2 cm); and

d. The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level which conforms to the applicable freeboard requirements.

305.3 Using Cleaning-Solvent that is Heated, Agitated, or is Non-Conforming: If a cleaning machine uses a cleaning-solvent at a temperature above 120°F (49°C), uses non-conforming solvent if allowed by Section 305.3(d) of this rule, or agitates the solvent, then comply with one of the following:

a. Remote Reservoir Cleaning Machines: For a remote reservoir cleaning machine, comply with Section 305.1 of this rule and one of the following:

(1) Use a stopper in the drain whenever the sink or cabinet is empty of solvent and nothing is being handled in the sink; or

(2) Cover the sink or cabinet whenever the sink or cabinet is empty of solvent and nothing is being handled in the sink.

b. Internal Reservoir Cleaning Machines: For an internal reservoir cleaning machine, comply with Section 305.2 of this rule and either Section (1) or (2) that follow:

(1) A Water Cover: A floating layer of water (insoluble in the solvent) at least 1 inch thick, and a freeboard at least 6 inches above the top of the solvent shall be present; or

(2) Freeboard and Cover:

(a) The basin shall have a freeboard ratio of 0.75 or greater and an impervious cover shall cover the basin whenever work is not being processed; and

(b) If a non-conforming solvent is used, the cover shall be of a sliding or rolling type which is designed to easily open and close in a horizontal plane without disturbing the vapor zone.

c. Cabinet Style: Keep a cabinet-style cleaning machine closed at all times that it contains cleaning-solvent, except when introducing or removing work from the machine. If blasting or misting with cleaning-solvent, also conform to the applicable requirements of Section 307 of this rule.

d. Non-Conforming Solvent: A non-conforming solvent may be used in operations to which this rule applies, if at least one of the following is met:

(1) The emissions from the operation shall be controlled by an ECS per Section 304.2 of this rule or by a Sealed System per Section 304.3 of this rule; or

(2) The operation is exempted per Section 308.2 of this rule; or

(3) The operation is both exempted per Section 308.3 of this rule and complies with Section 305.3 of this rule, or for in-line machines, complies with all of Section 306 of this rule except Section 306.4 of this rule.

305.4 ECS Alternative: An owner and/or operator is allowed to meet the requirements of any one or combination of the requirements of Sections 305.1, 305.2 and/or 305.3 of this rule by operating an ECS in accordance with Section IV of the Appendix within this rule whenever any requirement of Sections 305.1, 305.2 and/or 305.3 of this rule is not met.

306 NON-VAPOR IN-LINE CLEANING MACHINES: No person shall operate a non-vapor in-line cleaning machine using cleaning-solvent unless it complies with Sections 306.1, 306.2, and 306.3 of this rule:

306.1 Features:

a. Carry-Out Prevention: Equip the cleaning machine with either a drying tunnel or another means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out cleaning-solvent liquid or vapor.

b. Enclosed Design: An in-line cleaning machine shall be fully enclosed except for entrance and exit portals.

c. Cover: During shutdown hours or if the cleaning machine is idle for more than 30 minutes, a cover shall be used to close the entrance and exit and any opening greater than 16 square inches (104 cm2).

306.2 Minimized Openings: Entrances and exits should silhouette workloads so that the average clearance between parts and the edge of the cleaning machine opening is either less than four inches (10 cm), or less than 10% of the width of the opening.

306.3 The machine shall have a freeboard ratio greater than or equal to 0.75.

306.4 ECS Alternative: An owner and/or operator is allowed to meet the requirements of any one or combination of Sections 306.1(b), 306.1(c), 306.2, and/or 306.3 of this rule by operating an ECS that controls VOC vapor from processes addressed by the requirement(s). Such ECS shall be operated in accordance with Section IV of the Appendix within this rule.

307 SPECIAL NON-VAPOR CLEANING SITUATIONS:

307.1 Blasting/Misting with Conforming Solvent: Any person blasting or misting with conforming solvent shall operate and equip the device(s) as follows:

a. Equipment: The device shall have internal drainage, a reservoir or sump, and a completely enclosed cleaning chamber, designed so as to prevent any perceptible liquid from emerging from the device; and

b. Operation: The device shall be operated such that there is no perceptible leakage from the device except for incidental drops from drained, removed parts.

307.2 Blasting/Misting with Non-Conforming Solvent: Any person shall use a Sealed System pursuant to Section 304.3 of this rule for all blasting or misting with a non-conforming solvent.

307.3 High Pressure Flushing: Cleaning systems using cleaning-solvent that emerges from an object undergoing flushing with a visible mist or at a pressure exceeding 10 psig, shall comply as follows:

a. Conforming Solvent: For conforming solvent, use a containment system that is designed to prevent any perceptible cleaning-solvent liquid from becoming airborne outside the containment system, such as a completely enclosed chamber.

b. Non-Conforming Solvent: Use a Sealed System for non-conforming solvent.

307.4 ECS Alternative: An owner and/or operator is allowed to meet the requirement(s) of Section 307.1 and/or Section 307.2 of this rule by operating an ECS that controls

VOC vapor from processes addressed by the requirement(s). The ECS shall be operated pursuant to Section IV of the Appendix within this rule.

308 EXEMPTIONS:

308.1 Categorical Exemptions:

a. Industries and cleaning operations that are not regulated by this rule include, but are not limited to, the following EPA approved versions of the VOC rules in Regulation III of these rules:

(1) Dry cleaning with petroleum solvents (Rule 333);

(2) Printing and graphic arts coating (Rule 337);

(3) Semiconductor manufacturing (Rule 338);

(4) Automotive windshield washer fluid (Rule 344); and

(5) Architectural Coating (Rule 335).

b. All operations regulated by the following NESHAPs are exempt from Rule 331:

(1) National Emission Standards for Halogenated Solvent Cleaning (40 CFR 63, subpart T). This includes the de minimis amounts of solvent VOCs that are exempted by subpart T.

(2) National Emission Standards for Perchloroethylene for Dry Cleaning Facilities, (40 CFR 63, subpart M).

c. Exemptions for Qualified Operations:

(1) Cleanup of Coating-Application Equipment: Operations involving the cleanup of coating-application equipment that are subject to or specifically exempted by an EPA approved version of another rule in Regulation III of these rules are exempt from Rule 331. Examples include Rule 336 (Surface Coating Operations), Rule 342 (Coating Wood Furniture and Fixtures), and Rule 346 (Coating Wood Millwork).

(2) Aerospace: Wipe cleaning of aerospace components is subject to Rule 348 of these rules, whereas the cleaning of aerospace components in a dip tank or a cleaning machine is subject to Rule 331.

308.2 Partial Exemption from Section 300: The following are exempt from sections of Section 300 of this rule as noted:

a. Wipe Cleaning: The provisions of Sections 302 through 307 of this rule do not apply to wipe cleaning. Recordkeeping provisions in Section 500 of this rule do apply to wipe cleaning.

b. Small Cleaners: The provisions of Sections 303 through 307 of this rule shall not apply to any non-vapor cleaning machine (degreaser) or dip-tank fitting either of the following descriptions, except that these shall be covered when work is not being processed:

(1) A small cleaner having a liquid surface area of 1 square foot (0.09 square meters) or less, or

(2) A small cleaner having a maximum capacity of one gallon (3.79 liters) or less.

308.3 Exemptions from Section 304: The U.S. Government Printing Office "Standard Industrial Classification Manual, 1987" (and no future editions) is incorporated by reference and is on file at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, Arizona 85004. The following are exempt from Section 304 of this rule:

a. Non-furniture medical devices included in Standard Industrial Classification (SIC) codes 3841, 3843, 3844, or 3845, and products for internal use in 3842;

b. Electronic products for space vehicles and communications equipment in SIC codes 3661, 3663, 3669, 3677, 3678, 3679, and 3769; and

c. Production processes having clean-room standards equal to or more stringent than class 100,000 (particles/m3); and

d. Low viscosity solvent used to clean an aerospace component if the Federal Aviation Authority, the US Department of Defense, or a US Military specification designates that the cleanliness of the component is critical to the flight safety of a complete aerospace vehicle. By January 1, 2001, any such solvents shall be listed in a Maricopa County air pollution permit, conditioned upon a sufficient demonstration by the user that no compliant substitute exists.

308.4 Comfort Fans: The Section 303.1(a) prohibition against fans and fan-drafts being close to cleaning machines does not apply to a totally enclosed cleaning machine that cannot be penetrated by drafts.

308.5 Vehicle Refinishing: Dip cleaning of vehicle or mobile equipment surfaces is subject to this rule.

308.6 Aerosol cans, squirt bottles, and other solvent containers intended for handheld use shall meet the requirements in Sections 301 and 500 of this rule.

308.7 A Low-VOC Cleaner is subject only to Sections 301, 302, 307.1, 501.1(a), and 501.2 of this rule.

309 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT AND ECS MONITORING EQUIPMENT: For the purpose of this rule, an ECS shall be approved in writing by the Control Officer and shall be designed and operated in accordance with good engineering practices.

309.1 Operation and Maintenance (O&M) Plan Required for ECS:

a. General Requirements: An owner and/or operator shall provide and maintain (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or pursuant to an air pollution control permit. An owner and/or operator shall comply with all the identified actions and schedules provided in each O&M Plan.

b. Approval by Control Officer of Initial O&M Plan(s): An owner and/or operator shall submit to the Control Officer for written approval the O&M Plan(s) of each ECS and each ECS monitoring device that is used pursuant to this rule. While the Control Officer is reviewing for approval the O&M Plan(s), an owner and/or operator shall comply with all the identified actions and schedules provided in each O&M Plan submitted for approval, unless notified otherwise by the Control Officer. After the Control Officer has issued written approval of the O&M Plan(s), an owner and/or operator shall continue to comply with all the identified actions and schedules provided in each O&M Plan.

c. Owner and/or Operator Revisions to Initial O&M Plan(s): If an owner and/or operator submits to the Control Officer revisions to the initial O&M Plan(s) and if such revisions have been approved in writing by the Control Officer, an owner and/or operator shall comply with the revisions to the initial O&M Plan(s).

d. Control Officer Modifications to Initial O&M Plan(s): After discussion with the owner and/or operator, the Control Officer may modify the O&M Plan(s) in writing prior to approval of the initial O&M Plan(s). An owner and/or operator shall then comply with the O&M Plan(s) that has been modified by the Control Officer.

309.2 Providing and Maintaining ECS Monitoring Devices: An owner and/or operator incinerating, adsorbing, or otherwise processing VOC emissions pursuant to this rule shall provide, properly install and maintain in calibration, in good working order and in operation, devices described in the facility's O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any person subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.

501.1 Current List:

a. Maintain a current list of cleaning-solvents; state the VOC-content of each in pounds VOC per gallon of material or grams per liter of material.

b. A facility using any cleaning-solvent subject to the vapor-pressure limits of Section 304.1 of this rule shall have on site the written value of the total VOC vapor-pressure of each such solvent, in one of the following forms:

(1) A manufacturer's technical data sheet,

(2) A manufacturer's safety data sheet (MSDS), or

(3) Actual test results.

501.2 Usage Records:

a. Monthly: Records of the amount of cleaning-solvent used shall be updated by the end of month for the previous month. Show the type and amount of each make-up and all other cleaning-solvent to which this rule is applicable.

b. Annually:

(1) Certain Concentrates: Use of concentrate that is used only in the formulation of Low VOC Cleaner shall be updated at least annually.

(2) Low-VOC Cleaner: An owner and/or operator need not keep a record of a cleaning substance that is made by diluting a concentrate with water or non-precursor compound(s) to a level that qualifies as a Low VOC Cleaner if records of the concentrate usage are kept in accordance with this rule.

c. Grouping by VOC Content: For purposes of recording usage, an operator may give cleaning-solvents of similar VOC content a single group-name, distinct from any product names in the group. The total usage of all the products in that group is then recorded under just one name. (In such a case, the operator must also keep a separate list that identifies the product names of the particular solvents included under the group name). To the group name shall be assigned the highest VOC content among the members of that group, rounded to the nearest 10th of a pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.

502 COMPLIANCE DETERMINATION AND TEST METHODS: When more than one test method is permitted for a determination, an exceedance of the limits established in the rule determined by any of the applicable test methods constitutes a violation of this rule.

502.1 Compliance Determination: The following means shall be used to determine compliance with this rule. For routine information collection, the Control Officer may accept a manufacturers' data sheet, data certified by an officer of the supplying company, or test data for the product model of inquiry.

a. VOC Content: The VOC content of solutions, dispersions, emulsions, and conforming solvents (reference Section 207 of this rule) shall be determined by one of the following methods:

(1) South Coast Air Quality Management District Method 313-91 as referenced in Section 502.2(f) of this rule; or

(2) Bay Area Air Quality Management District Method 31 as referenced in Section 502.2(e) of this rule; or

(3) Solids-free windshield washer solutions, in which all organic components are VOCs, may be tested using Maricopa County Reference Method #100, "Total Organic Carbon for Windshield Washer Fluids," Maricopa County Air Pollution Control Rule 344 (April 7, 1999). This method should only be used for water-based solutions containing less than 5% VOC by weight.

b. Vapor Pressure: Pursuant to Sections 304 and 207 of this rule, determination of the total VOC vapor-pressure (VOC composite partial-pressure) in a cleaning solution shall be performed as follows:

(1) For solutions known to be nearly or exactly 100% VOC, vapor pressure shall be determined by ASTM D2879-96 as referenced in Section 502.2(g) of this rule; or

(2) For solutions for which is known the exact quantity and chemical makeup of each evaporating component that is not a VOC, ASTM D2879-96 (referencing Section 502.2(g) of this rule) shall be used (to determine the gross composite vapor pressure) in conjunction with calculations using the vapor-pressure formula in Section 502.3 of this rule.

(3) When a solution's exact species and proportions are known for all ingredients, the Control Officer may use the formula in Section 502.3 of this rule in conjunction with standard reference texts or data-bases that provide the vapor pressure value of each constituent, or a combination of formula use and actual testing on real constituents (referencing Section 502.2(g) of this rule).

c. ECS Compliance:

(1) The VOC content of gaseous emissions entering and exiting an ECS shall be determined by either EPA Method 18 referred to in Section 502.2(b) of this rule, or EPA Methods 25, 25a, and 25b referred to in Section 502.2(c) of this rule.

(2) Capture efficiency of an emission control device used pursuant to Section 304.2, Section 305.4, Section 306.4, and/or Section 307.4 of this rule shall be determined either by the methods in Section 502.2(d) of this rule (EPA Methods 204, 204a, 204b, 204c, 204d, 204e, and 204f) or by using mass balance calculation methods in concert with the methods in Section 502.2(a) of this rule (EPA Methods 2, 2a, 2c, and 2d), and EPA guidance document, "Guidelines for Determining Capture Efficiency", January 9, 1995.

d. Temperature Measurement: Temperature measurements made pursuant to Section 214 of this rule to determine if a cleaning machine contains a "heated solvent" shall be done with an instrument having an accuracy and precision of no less than 1 degree Fahrenheit.

502.2 Test Methods Adopted by Reference: The EPA test methods as they exist in the Code of Federal Regulations (CFR) (July 1, 2003), as listed below, are adopted by reference. The other test methods listed here are also adopted by reference, each having paired with it a specific date that identifies the particular version/revision of the method that is adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in this Section 502 are available at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, AZ, 85004.

a. EPA Methods 2 ("Determination of Stack Gas Velocity and Volumetric Flow Rate"), 2a ("Direct Measurement of Gas Volume Through Pipes and Small Ducts"), 2c ("Determination of Stack Gas Velocity and Volumetric Flow rate in Small Stacks or Ducts"), and 2d ("Measurement of Gas volumetric Flow Rates in Small Pipes and Ducts"). All 4 of the foregoing methods are in 40 CFR 60, Appendix A.

b. EPA Method 18 ("Measurement of Gaseous Organic Compound Emissions by Gas Chromatography") (40 CFR 60, Appendix A).

c. EPA Methods 25 ("Determination of Total Gaseous Non-methane Organic Emissions as Carbon"), 25a, and 25b (40 CFR 60, Appendix A).

d. EPA Test Methods 204 ("Criteria for and Verification of a Permanent or Temporary Total Enclosure"), 204a, 204b, 204c, 204d, 204e, and 204f (40 CFR 51, Appendix M) and EPA guidance document, "Guidelines for Determining Capture Efficiency", January 9, 1995.

e. California's Bay Area Air Quality Management District (BAAQMD) Method 31 (April 15, 1992), "Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings."

f. California's South Coast Air Quality Management District (SCAQMD) Method 313-91 (April 1997).

g. American Society for Testing and Materials (ASTM) Method D2879-96 (1996).

h. EPA guidance document, "Guidelines for Determining Capture Efficiency", January 9, 1995.

502.3 FORMULA FOR VOC COMPOSITE PARTIAL PRESSURE: Equivalent to: TOTAL VOC VAPOR-PRESSURE.

$$PP_c = \frac{\sum_{i=1}^{n} (W_i)(VP_i)/M_i}{\frac{W_w}{18} + \sum_{j=1}^{m} \frac{W_e}{M_e} + \sum_{i=1}^{n} \frac{W_i}{M_i}}$$

$W_i$ = Weight of the "*i*"th VOC compound in grams

$W_w$ = Weight of water in grams

$We$ = Weight of the "*j*"th non-precursor compound in grams

$M_i$ = Molecular weight of the "*i*"th VOC compound in grams per gram mole, e.g., one gram-mole of isopropyl alcohol weighs 60 grams

$M_e$ = Molecular weight of the "*j*"th non-precursor compound, e.g., 1 gram-mole of acetone weighs 58 grams

$PP_c$ = VOC composite partial pressure at 20°C in mm mercury (Hg)

$VP_i$ = Vapor pressure of the "*i*"th VOC compound at 20°C in mm Hg

18 = Weight of one gram-mole of water

APPENDIX TO RULE 331
VAPOR CLEANING MACHINES and EMISSION CONTROL SYSTEMS

I. DEFINITIONS:

(1) VAPOR LEVEL CONTROL SYSTEM: A combination of a coolant sensing system and a vapor sensing system consisting of the following three sets of features:

(A) A condenser flow switch and thermostat which shuts off the sump heat if either the condenser coolant stops circulating or becomes warmer than 85°F (29°C); and

(B) A manually-reset safety switch which turns off the sump heater if the temperature sensor senses that the temperature is rising above the designed operating level at the vapor/air interface; and

(C) A manually-reset switch which turns off the spray-system pump if the level of the vapor/air interface drops more than 4 inches (10 cm).

II. BATCH-LOADED VAPOR CLEANING MACHINES:

(1) No person shall operate a batch vapor cleaning machine, unless the machine meets National Emission Standards for Halogenated Solvent Cleaning (subpart T, Rule 370), as if the cleaning solvent in use were subject to subpart T standards.

(2) No person shall operate a batch vapor cleaning machine, unless the machine has a vapor/air interface Fahrenheit temperature no greater than 30% of the solvent's boiling point temperature or no greater than 40.0°F (4.4°C), whichever is lower.

(3) Sections II(1) and II(2) of this Appendix shall not apply, if a batch vapor cleaning machine is equipped with all of the following:

(A) Cover: An impermeable cover that is a sliding, rolling, fanning, or guillotine (bi-parting) type which is designed to easily open and close without disturbing the vapor zone.

(B) A Vapor Level Control System.

(C) Primary Condenser: A primary condenser that maintains an exit temperature not exceeding 85°F (29°C) or is equipped pursuant to Section II(3)(F)(ii) of this Appendix.

(D) Freeboard Ratio: A freeboard ratio that is greater than or equal to 0.75.

(E) Lip Exhausts: Vapor cleaning machines with lip exhausts shall be controlled by an ECS.

(F) Refrigeration or ECS: Batch vapor cleaning machines having any of the following descriptors shall comply with Sections II(3)(F)(i), II(3)(F)(ii), or II(3)(f)(iii) of this Appendix:

• an evaporative surface area equal to or greater than 10.75 $ft^2$ (1.0 $m^2$); or

• installed or subject to major modification after November 1, 1999; or

• having average monthly VOC emissions exceeding 31 pounds VOC per square foot of solvent surface area:

(i) A refrigerated freeboard chiller for which the chilled air blanket temperature in degrees Fahrenheit at the coldest point on the vertical axis through the horizontal center of the vapor/air interface either shall be no greater than 30% of the initial boiling point of the solvent in degrees Fahrenheit or no greater than 40.0°F (4.4°C); or

(ii) A refrigerated condenser coil (in place of an unrefrigerated coil) having a minimum cooling capacity of 100% of the boiling-sump heat input rate and conforming to the air blanket temperature requirements pursuant to Section II(3)(F)(i); or

(iii) An ECS operated in accordance with Section IV of this Appendix.

(G) Water Separator: Water should not be visually detectable in the VOC containing solvent exiting the water separator.

(4) Sections II(1) and II(2) of this Appendix shall not apply, if a batch vapor cleaning machine meets all of the following:

(A) Workloads:

(i) A workload shall not occupy more than half of the cleaning machine's open-top area.

(ii) The workload shall not be so massive that the vapor level drops more than 4 inches (10 cm), when the workload is removed from the vapor zone.

(iii) The workload shall not be sprayed with cleaning-solvent above the vapor/air interface level.

(B) Carry-Out: Minimize cleaning-solvent carry-out by the following measures:

(i) Orient the items being cleaned in such a way that the items drain easily after cleaning.

(ii) Degrease the workload in the vapor zone at least 30 seconds or until condensation ceases.

(iii) For manual loading/unloading, tip out any pools of solvent on the cleaned parts before removal.

(iv) Allow parts to dry within the batch vapor cleaning machine until visually dry.

(C) Startup and Shutdown: The following sequence shall be used for startup and shutdown:

(i) When starting the batch vapor cleaning machine, the cooling system shall be turned on before, or simultaneously with, the sump heater.

(ii) When shutting down the batch vapor cleaning machine, the sump heater shall be turned off before, or simultaneously with, the cooling system.

(D) Blasting: Blasting in a batch vapor cleaning machine shall be done within a Sealed System or be controlled by an ECS.

(E) Records: An owner and/or operator operating a batch vapor cleaning machine shall keep records pursuant to Section 501 of this rule.

III. IN-LINE VAPOR CLEANING MACHINES:

(1) No person shall operate an in-line vapor cleaning machine, unless the machine meets National Emission Standards for Halogenated Solvent Cleaning (subpart T, Rule 370), as if the cleaning-solvent in use were subject to subpart T standards.

(2) No person shall operate an in-line vapor cleaning machine, unless the machine has a vapor/air interface Fahrenheit temperature no greater than 30% of the solvent's boiling point temperature or no greater than 40.0°F (4.4°C), whichever is lower.

(3) Sections III(1) and III(2) of this Appendix shall not apply, if an in-line vapor cleaning machine is equipped with all of the following:

(A) Cover: Within 10 minutes of turning off the solvent heating system, cover the entrance and exit and any opening greater than 16 square inches (104 cm2).

(B) Vapor Level Control System.

(C) Primary Condenser: Have a primary condenser that maintains an exit temperature not exceeding 85°F (29°C).

(D) Freeboard Ratio: Have a freeboard ratio greater than or equal to 0.75.

(E) Refrigeration or ECS: In-line vapor cleaning machines having any of the following descriptors shall comply with Sections III(3)(E)(i), III(3)(E)(ii), or III(3)(E)(iii) of this Appendix:

- An evaporative surface area equal to or greater than 10.75 $ft^2$ (1.0 $m^2$); or
- Installed or subject to major modification after November 1, 1999, or
- Having average monthly VOC emissions exceeding 31 pounds VOC per square foot of solvent surface area:

(i) A refrigerated freeboard chiller for which the chilled air blanket temperature in degrees Fahrenheit at the coldest point on the vertical axis through the horizontal center of the vapor/air interface either shall be no greater than

30% of the initial boiling point of the solvent in degrees Fahrenheit or no greater than 40.0°F (4.4°C); or

(ii) A refrigerated condenser coil (in place of an unrefrigerated coil) having a minimum cooling capacity of 100% of the boiling-sump heat input rate and conforming to the air blanket temperature requirements pursuant to Section III(3)(E)(i) of this Appendix; or

(iii) An ECS operated in accordance with Section IV of this Appendix.

(F) Water Separator: Water should not be visually detectable in the VOC-containing solvent exiting the water separator.

(4) Sections III(1) and III(2) of this Appendix shall not apply, if the in-line vapor cleaning machine meets all of the following:

(A) Workloads: Entrances and exits should silhouette workloads so that the average clearance between parts and the edge of the in-line vapor cleaning machine opening is either less than 4 inches (10 cm) or less than 10% of the width of the opening.

(B) Carry-Out: Equip the in-line vapor cleaning machine with either a drying tunnel or another means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out cleaning-solvent liquid or vapor.

(C) Startup and Shutdown: The following sequences shall be used for startup and shutdown:

(i) When starting the in-line vapor cleaning machine, the cooling system shall be turned on before, or simultaneously with, the sump heater.

(ii) When shutting down the in-line vapor cleaning machine, the sump heater shall be turned off before, or simultaneously with, the cooling system.

(D) Records: An owner and/or operator operating an in-line vapor cleaning machine shall keep records pursuant to Section 501 of this rule.

IV. EMISSION CONTROL SYSTEM REQUIREMENTS:

(1) An Emission Control System (ECS) used pursuant to this rule shall consist of a hood or enclosure to collect emissions, which are vented to a processing device. The overall control efficiency (capture plus processing) of the system shall not be less than 85%. The capture system shall have a ventilation rate no greater than 65 cfm per square foot of evaporative surface (20 m3/min./m2), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation-system design, that concerns health and safety requirements. The ECS shall be approved by the Control Officer.

(2) Operation and Maintenance (O&M) Plan Required for ECS: An owner and/or operator shall create and maintain an O&M Plan for any ECS required by this rule or

pursuant to an air pollution control permit in accordance with Section 309 of this rule.

(3) Recordkeeping:

(A) ECS Operation and Maintenance Records: On each day that an ECS is used to comply with any provision of this rule, an owner and/or operator shall make a permanent record of the operating parameters of the key systems described in the O&M Plan. For each day or period in which the O&M Plan requires that maintenance be performed, a permanent record shall be made of the maintenance actions taken, within 24 hours of maintenance completion. An explanation shall be entered for scheduled maintenance that is not performed during the period designated in the O&M Plan.

(B) Other Records Required when Complying via ECS: An owner and/or operator using an ECS pursuant to this rule shall maintain, in addition to the records required by Section 501.1 of this rule, daily documentation showing the VOC content of the solvent material and the amount added for makeup.

(4) Test Methods for Determining Emission Control System Compliance: Test methods and compliance procedures for an ECS are in Section 502 of this rule.

**(Maricopa County Air Pollution Control Regulation III, Rule 331 (Solvent Cleaning). Revised and adopted by the Board on September 25, 2013)**

**SIP RULE 333: PETROLEUM SOLVENT DRY CLEANING**

REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 333
PETROLEUM SOLVENT DRY CLEANING
INDEX



Revised 07/13/88
Revised 06/22/92
Revised 06/19/96
Revised 09/25/13

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 333
PETROLEUM SOLVENT DRY CLEANING

SECTION 100 – GENERAL

101 PURPOSE: To limit the emissions of volatile organic compounds from petroleum solvents used in dry cleaning.

102 APPLICABILITY: This rule applies to petroleum solvent washers, dryers, solvent filters, settling tanks, vacuum stills, and other containers and conveyors of petroleum solvent that are used in petroleum solvent dry cleaning facilities.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of

these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 CARTRIDGE FILTER: Any perforated canister containing filtration paper, fabric and/or activated carbon that is used in a pressurized system to remove solid particles and fugitive dyes from soil-laden solvent.

202 CONTAINERS AND CONVEYORS OF SOLVENT: Any piping, ductwork, pumps, storage tanks, and other ancillary equipment that are associated with the installation and operation of washers, dryers, filters, stills and settling tanks.

203 DRY CLEANING: A process for the cleaning of textiles and fabric products in which articles are washed in non-aqueous solvent and then dried by exposure to a heated air stream.

204 PERCEPTIBLE LEAKS: Any petroleum solvent vapor, mist, or liquid leaks that are conspicuous from visual observation, such as pools or droplets of liquid, or buckets or barrels of solvent or solvent-laden waste standing open to the atmosphere.

205 PETROLEUM SOLVENT: Volatile organic compounds commonly produced by petroleum distillation, primarily comprising a hydrocarbon range of 8 to 12 carbon atoms per organic molecule.

206 SOLVENT RECOVERY DRYER: A class of dry cleaning dryers that employs a condenser to liquefy and recover solvent vapors evaporating in a closed-loop, recirculating stream of heated air.

SECTION 300 – STANDARDS

301 OPERATING REQUIREMENTS: A person shall not operate any petroleum solvent dry cleaning facility unless all of the following requirements are satisfied:

301.1 Liquid and Vapor Leaks: Dry cleaning equipment shall not be operated with perceptible leaks from any portion of the equipment, including but not limited to: hose connections, unions, couplings and valves; machine door gaskets and seating; filter head gaskets and seating; pumps; base tanks and storage containers; water separators; filter sludge recovery; distillation units; divertor valves; solvent-moistened lint from lint basket; and cartridge filters.

301.2 Solvent Storage: Solvents shall be stored in closed containers.

301.3 Access Vents: All washer and dryer traps, access doors, and any other parts of equipment where solvent may be exposed to the atmosphere, shall be kept closed at all times except when required for proper operation or maintenance.

301.4 Solvent Filtration: Any petroleum filtration system shall be installed and operated to comply with at least one of the following:

a. Reduce the volatile organic compounds in all filtration wastes to 2.2 lbs. (1 kg) or less per 220 lbs. (100 kg) dry weight of articles cleaned, before disposal, and exposure to the atmosphere; or

b. Install and operate a cartridge filtration system, and drain the filter cartridges in their sealed housings for eight hours or more before their removal; or

c. Place all discarded filtration material, including cartridges and particulate filter media, immediately in sealed containers and dispose of according to hazardous waste statutes.

302 CONTROLS REQUIRED – SOLVENT RECOVERY DRYER: Petroleum solvent dry cleaning facilities installed after July 13, 1988, shall have a solvent recovery that recovers at least 85 percent of petroleum solvent by weight. In addition, the recovery cycle for the dryer shall not be terminated until the petroleum solvent flow rate from the water separator is 15 milliliters or less per minute.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: Any person subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.

501.1 Current List: Maintain a current list of solvents and any other VOC containing materials; state the VOC content of each in pounds per gallons or grams per liter.

501.2 Usage Records and Amount of Clothes Cleaned: Maintain monthly records of the weight of clothing cleaned, the amount of solvent used, and the weight and type of any material disposed of which contains any quantity of cleaning solvent. The name of the company receiving such material shall also be recorded.

502 COMPLIANCE DETERMINATION – TEST METHODS: When more than one test method is permitted for a determination, an exceedance of the limits established in the rule determined by any of the applicable test methods constitutes a violation of this rule.

502.1 Measurements of petroleum-based VOC emissions pursuant to provisions of this rule shall be conducted in accordance with EPA Test Method 25 or its applicable sub-method(s) (40 CFR 60, Appendix A). Alternatively, a person may meet the efficiency (85 percent) requirement of Section 302 if 6.6 lbs. (3 kg) or less of petroleum solvent is emitted per 220 lbs. (100 kg) dry weight of articles cleaned, subject to prior approval of the test protocol by the Control Officer.

502.2 Measurements of VOC content of solvents, waste, recovered or recycled material shall be conducted and reported in accordance with ASTM Standard Recommended Practices for General Gas Chromatography Procedures, E 260-85 or ASTM General Techniques for Infrared Quantitative Analysis, E 160A-67 or ASTM General Techniques of Ultraviolet Quantitative Analysis, ASTM E 169-63; as approved by the Control Officer.

502.3 Efficiency of the control device shall be determined according to EPA Method 18.

502.4 Ventilation/draft rate shall be determined by EPA Methods 2, 2A, 2C and 2D.

**(Maricopa County Air Pollution Control Regulation III, Rule 333 (Petroleum Solvent Dry Cleaning). Revised and adopted by the Board on September 25, 2013)**

**SIP RULE 335: ARCHITECTURAL COATINGS**

REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 335
ARCHITECTURAL COATINGS
INDEX

239 TILE-LIKE GLAZE COATINGS
240 TRAFFIC COATINGS
241 UNIQUE VEHICLES
242 URETHANE POLYMERS
243 VARNISHES
244 VINYL CHLORIDE POLYMERS
245 WATERPROOF MASTIC COATINGS
246 WATERPROOF SEALERS

SECTION 300 – STANDARDS
301 PROHIBITION-BITUMINOUS PAVEMENT SEALERS
302 INTERIM LIMITS - NON-FLAT ARCHITECTURAL COATINGS
303 FINAL LIMITS - NON-FLAT ARCHITECTURAL COATINGS
304 LIMITS - FLAT ARCHITECTURAL COATINGS
305 LIMITS - SPECIALTY COATINGS
306 EXEMPTIONS - SPECIFIC-USE COATINGS
307 EXEMPTIONS - SMALL CONTAINERS

SECTION 400 – ADMINISTRATIVE REQUIREMENTS
401 LABELING REQUIRED
402 MANUFACTURE DATE REQUIRED

SECTION 500 – MONITORING AND RECORDS
501 DETERMINATION OF COMPLIANCE

Adopted 07/13/88
Revised 09/25/13

# MARICOPA COUNTY
# AIR POLLUTION CONTROL REGULATIONS
# REGULATION III – CONTROL OF AIR CONTAMINANTS
# RULE 335
# ARCHITECTURAL COATINGS

## SECTION 100 – GENERAL

101 PURPOSE: To limit the emission of volatile organic compounds from architectural coatings.

102 APPLICABILITY OF MULTIPLE STANDARDS: In any instance where more than one of the standards set forth in this rule may be applicable, the most restrictive standard shall apply.

## SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 ACRYLIC POLYMERS: Polymers resulting from the polymerization of derivatives of acrylic acids, including esters of acrylic acids, methacrylic acid, acrylonitrile, and their copolymers. Also known as acrylic resins and acrylate resins.

202 ALKYDS: Synthetic resins formed by the condensation of polyhydric alcohols with polybasic acids.

203 ARCHITECTURAL COATING: Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements or to curbs.

204 BELOW GROUND WOOD PRESERVATIVES: Heavy duty coatings formulated solely for the purpose of protecting below ground wood from decay or insect attack and which contain a wood preservative.

205 BITUMINOUS COATING MATERIALS: Black or brownish materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude petroleum oils or of low grades of coal.

206 BOND BREAKERS: Coatings whose sole purpose, when applied between layers of concrete, is to prevent the freshly poured top layer of concrete from bonding to the substrate on which it is poured.

207 CATALYZED EPOXY: Crosslinking resins made by the reaction of epoxides with other material such as amines, alcohols, phenols, carboxylic acids and unsaturated compounds.

208 CONCRETE CURING COMPOUNDS: Coatings whose sole purpose is to retard the evaporation of water from the surface of freshly cast concrete, thereby strengthening it.

209 CHLORINATED RUBBER: Resin formed by the reaction of rubber with chlorine.

210 DRY FOG COATINGS: Coatings which are formulated so that when sprayed, overspray droplets dry before falling on floors and other surfaces.

211 ENAMEL UNDERCOATERS: Coatings which are designed to be applied to a new surface over a primer or over a previous coat of paint, in order to improve the seal, provide better adhesion and make a smooth base for non-flat coatings.

212 FIRE RETARDANT COATINGS: Coatings which are designed to retard fires and which will significantly:

212.1 Reduce the rate of flame spread on the surface of a material to which such a coating has been applied; or

212.2 Resist ignition when exposed to high temperature; or

212.3 Insulate a substrate to which such a coating has been applied and prolong the time required for the substrate to reach ignition temperature.

213 FLAT COATINGS: Coatings which register gloss less than 15 on an 85° meter or less than 5 on a 60° meter, or which is labeled as a flat coating.

214 GENERAL PRIMERS: Coatings which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats.

215 GENERAL SEALERS: Coatings which are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

216 GENERAL UNDERCOATERS: Coating which are designed to provide a smooth surface for subsequent coats.

217 GRAPHIC ARTS COATINGS (SIGN PAINTS): Coatings which are marketed solely for application to indoor and outdoor signs and include lettering enamels, poster colors and bulletin colors.

218 INDUSTRIAL MAINTENANCE PRIMERS: Coatings which are intended to be applied to a surface prior to the application of an industrial maintenance topcoat, to provide a firm bond between the substrate and subsequent coats.

219 INDUSTRIAL MAINTENANCE TOPCOATS: High performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical or solvent resistance.

220 INORGANIC POLYMERS: Substances whose principle structural features are made of homopolar inter-linkages between multivalent elements other than carbon. This does not preclude the presence of carbon-containing groups in the side branches, or as inter-linkages between principle structural members. Examples of such polymers are ethyl and butyl silicates.

221 LACQUERS: Clear or pigmented coatings formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction and to provide a quick drying, solid protective film.

222 MASTIC TEXTURE COATINGS: Coatings, except weatherproof mastic coatings, which are formulated to cover holes, minor cracks and to conceal surface irregularities.

223 METALLIC PIGMENTED PAINTS: Any coatings which are formulated with metallic pigment and which contain more than 10 grams of metal particles per liter of coating (0.08 lb/gal) as applied where such metal particles are visible in the dried film.

224 MULTI-COLORED COATINGS: Coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.

225 NON-FLAT COATINGS: Coatings which register gloss of 15 or greater on an 85° meter or 5 or greater on a 60° meter, or which are identified on the label as gloss, semi-gloss, or eggshell enamel coatings.

226 OPAQUE STAINS: All stains that are not classified as semitransparent stains.

227 OPAQUE WOOD PRESERVATIVES: All wood preservatives that are not classified as semitransparent wood preservatives.

228 ORGANIC COMPOUND: Any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates and ammonium carbonate.

229 QUICK-DRY ENAMELS: Non-flat coatings which comply with the following:

229.1 Should be capable of being applied directly from the container by brush or roller when the ambient temperature is between 60°F and 80°F.

229.2 When tested in accordance with ASTM D1640 they shall: set to touch in two hours or less, dry hard in eight hours or less, and be tack-free in four hours or less by the mechanical method test.

229.3 Shall have a 60° meter dried film gloss of no less than 70.

230 QUICK-DRY PRIMERS AND SEALERS: Primers, sealers and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and which are dry to the touch in one-half hour and can be recoated in two hours (ASTM 1640).

231 ROOF COATINGS: Coatings which are formulated for the sole purpose of preventing penetration of the substrate by water. These coatings include bituminous roof and waterproof mastic coatings.

232 SEMI-TRANSPARENT STAINS: Coatings which are formulated to change the color of a surface but not conceal the surface.

233 SEMI-TRANSPARENT WOOD PRESERVATIVES: Wood preservative stains which are formulated for the purpose of protecting exposed wood from decay or insect attack by the addition of a wood preservative chemical and which change the color of a surface but do not conceal the surface. These coatings perform their function by penetrating into the wood.

234 SHELLACS: Clear or pigmented coatings formulated with natural resins (except nitrocellulose resins), thinned with alcohol, formulated to dry by evaporation without a chemical reaction and intended to provide stain blocking properties as well as a solid protective film.

235 SILICONES: A resin containing silicon unlike organic resins, which all contain carbon. The basic structure of silicones consist of silicon-oxygen linkages.

236 SPECIALTY FLAT PRODUCTS: Self-priming flat products used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; or coat acoustical materials without affecting their acoustical abilities.

237 SPECIALTY PRIMERS, SEALERS, AND UNDERCOATERS: Primers, sealers and undercoaters used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; block efflorescence; condition chalky surfaces; or coat acoustical materials without affecting their acoustical abilities.

238 SWIMMING POOL COATINGS: Coatings specifically formulated to coat the interior of swimming pools and resist swimming pool chemicals.

239 TILE-LIKE GLAZE COATINGS: Coatings which are formulated to provide a tough, extra-durable coating system, which are applied as a continuous (seamless) highbuild film and which cure to a hard glaze finish.

240 TRAFFIC COATINGS: Coatings which are formulated to be applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots.

241 UNIQUE VEHICLES: Generic polymer components not defined by any of the coatings listed in the category of industrial primers and topcoats in Section 305 of this rule, e.g., hypalon, phenoxy.

242 URETHANE POLYMERS: Coating vehicles containing a polyisocyanatemonomer reacted in such a manner as to yield polymers containing any ratio, proportion, or combination of urethane linkages, active isocyanate groups, or polyisocyanate monomer.

243 VARNISHES: Clear or pigmented coatings formulated with various resins to dry by chemical reaction or exposure to air. These coatings are intended to provide a durable, transparent or translucent, solid protective film.

244 VINYL CHLORIDE POLYMERS: Polymers made by the polymerization of vinyl chloride or copolymerization of vinyl chloride with other unsaturated compounds, the vinyl chloride being in greatest amount by weight.

245 WATERPROOF MASTIC COATINGS: Weatherproof and waterproof coatings which are formulated to cover holes and minor cracks and to conceal surface irregularities.

246 WATERPROOF SEALERS: Coatings which are formulated for the sole purpose of protecting porous substrates by preventing the penetration of water.

SECTION 300 – STANDARDS

301 PROHIBITION–BITUMINOUS PAVEMENT SEALERS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

302 INTERIM LIMITS–NON-FLAT ARCHITECTURAL COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any non-flat architectural coating manufactured after July 13, 1989, which contains more than 3.2 lbs (380 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings listed in Section 305 of this rule.

303 FINAL LIMITS–NON-FLAT ARCHITECTURAL COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any non-flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings listed in Section 305 of this rule.

304 LIMITS–FLAT ARCHITECTURAL COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any flat architectural coating manufactured after July 13, 1989, which contains more than 2.1 lbs (250 g/l) of volatile organic

compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings listed in Section 305 of this rule.

305 LIMITS: SPECIALTY COATINGS: No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any architectural coating that exceeds the following limits manufactured after the date listed below. Limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

| | **Effective Dates** | | |
|---|---|---|---|
| | 7/13/89 | 7/13/90 | 7/13/91 |
| **COATING** | | | (lb/gal) |
| Concrete Curing Compounds | - | - | 2.9 |
| Dry Fog Coating | | | |
| Flat | 4.6 | - | 3.5 |
| Non-flat | 3.5 | - | 3.3 |
| Enamel Undercoaters | 3.8 | - | 2.9 |
| General Primers, Sealers and Undercoaters | 3.3 | - | 2.9 |
| Industrial Maintenance Primers and Topcoats | | | |
| Alkyds | 4.2 | 3.5 | 3.5 |
| Catalyzed Epoxy | - | 4.2 | 3.5 |
| Bituminous Coating Materials | - | - | 3.5 |
| Inorganic Polymers | - | - | 3.5 |
| Vinyl Chloride Polymers | - | - | 3.5 |
| Chlorinated Rubbers | - | - | 3.5 |
| Acrylic Polymers | - | 3.5 | 3.5 |
| Urethane Polymers | - | 3.5 | 3.5 |
| Silicones | - | - | 3.5 |
| Unique Vehicles | - | - | 3.5 |
| Lacquers | - | - | 5.7 |
| Opaque Stains | 3.3 | - | 2.9 |
| Wood Preservatives | - | - | 2.9 |
| Quick Dry Enamels | - | - | 3.3 |
| Roof Coatings | - | - | 2.5 |
| Semi-transparent Stains | - | - | 2.9 |
| Semi-transparent and Clear Wood Preservatives | - | - | 2.9 |
| Opaque Wood Preservatives | 3.3 | - | 2.9 |
| Specialty Flat Products | - | - | 3.3 |
| Specialty Primers, Sealers & Undercoaters | - | - | 2.9 |
| *Stains, All* | - | - | *2.9* |
| Traffic Coatings | | | |
| Applied to Public Streets and Highways | 3.5 | - | 2.1 |
| Applied to other Surfaces | 2.1 | - | 2.1 |
| Black Traffic Coatings | - | - | 2.1 |
| Varnishes | - | 4.2 | 2.9 |
| Waterproof Mastic Coating | - | - | 2.5 |

| | | | |
|---|---|---|---|
| Waterproof Sealers | - | - | 3.3 |
| *Wood Preservatives Except Below Ground* | – | – | 2.9 |

306 EXEMPTIONS–SPECIFIC USE COATINGS: This rule shall not apply to architectural coatings recommended by the manufacturer for use solely as one or more of the following:

306.1 Below ground wood preservative coatings.

306.2 Bond breakers.

306.3 Fire retardant coatings.

306.4 Graphic arts coatings (sign paints).

306.5 Mastic texture coatings.

306.6 Metallic pigmented coatings.

306.7 Multi-colored paints.

306.8 Quick-dry primers, sealers and undercoaters.

306.9 Shellacs.

306.10 Swimming pool paints.

306.11 Tile-like glaze coatings.

307 EXCEPTION–SMALL CONTAINERS: The provisions of this rule shall not apply to architectural coatings supplied in containers having capacities of one quart or less.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 LABELING REQUIRED: Effective July 13, 1989, containers for all coatings subject to this rule shall carry a statement of the manufacturer's recommendation regarding thinning of the coatings. Data may be quantified with either English or metric units. This requirement shall not apply to the thinning of the architectural coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions, unless the recommended thinning for normal environmental and application conditions does not cause the coating to exceed its applicable standard. Architectural coatings subject to the Federal Insecticide, Fungicide and Rodenticide Act shall not be subject to the labeling requirements of this rule.

402 MANUFACTURE DATE REQUIRED: Containers for all coatings subject to the provisions of this rule shall display the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturers of such coatings shall file with the Control Officer an explanation of each code.

SECTION 500 – MONITORING AND RECORDS

501 DETERMINATION OF COMPLIANCE: Testing procedures to determine compliance with prescribed VOC limits shall be consistent with Reference Methods 24 and 24A in the Arizona Testing Manual for Air Pollutant Emissions.

**(Maricopa County Air Pollution Control Regulation III, Rule 335 (Architectural Coatings). Revised and adopted by the Board on September 25, 2013)**

## APPENDIX A: FOSSIL FUEL-FIRED STEAM GENERATORS

APPENDIX A: FOSSIL FUEL-FIRED STEAM GENERATORS
APPENDIX A

FOSSIL FUEL FIRED STEAM GENERATORS: The following procedures shall be used to convert gaseous emission monitoring data in parts per million to g/million cal (lb/million BTU) where necessary.

(1) Measurement of Oxygen in Flue Gas: When the owner or operator of a fossil fuel-fired steam generator elects to measure oxygen in the flue gases, the measurements of the pollutant concentration and oxygen concentration shall each be on a consistent basis (wet or dry).

a. When measurements are on a wet basis, except where wet scrubbers are employed or where moisture is otherwise added to stack gases, the following conversion procedure shall be used:

$$E_Q = C_{ws}F_w \frac{(20.9)}{(20.9(1 - B_{wa}) - \%\ O_{2wa})}$$

b. When measurements are on a wet basis and the water vapor content of the stack gas is determined at least once every fifteen minutes the following conversion procedure shall be used:

$$E_Q = C_{ws}F \frac{(20.9)}{(20.9(1 - B_{ws}) - \%\ O_{2ws})}$$

Note: This equation is approved in principle. Approval for actual practice is contingent upon demonstrating the ability to accurately determine BWS such that any absolute error in BWS will not cause an error of more than +/ 1.5 percent in the term:

$$\frac{(20.9)}{(20.9(1 - B_{ws}) - \%\ O_{2ws})}$$

c. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E_Q = CF \frac{(20.9)}{(20.9 - \%\ O_2)}$$

(2) Measurement of Carbon Dioxide in Flue Gas: When the owner or operator elects to measure carbon dioxide in the flue gases, the measurement of the pollutant concentration and the carbon dioxide concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure used:

$$E_Q = CF_c \frac{(100)}{(\%CO_2)}$$

The values used in the above equations are derived as follows:

| | | |
|---|---|---|
| $E_Q$ | = | Pollutant emission, g/million cal (lb/million BTU). |
| C | = | Pollutant concentration, g/dscm (lb/dsdf), determined by multiplying the average concentration (ppm) for each hourly period by 4.16 x 10-5 M g/dscm per ppm (2.64 x 10-9 M lb/dscf per ppm) where M = pollutant molecular weight, g/g mole (lb/lb mole) or M = 64 for sulfur dioxide and 46 for oxides of nitrogen. |
| %O2, %CO2 | = | Oxygen or carbon dioxide volume (expressed as percent) determined with equipment specified under Section 303 of Rule 245. |
| F,Fc | = | A factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted (Fc), respectively. Values of F and Fc are given in § 60.45 (f) of Part 60, Chapter 1, Title 40, Code of Federal Regulations. |
| Cws | = | Pollutant concentrations at stack conditions, g/wscm (lb/wscf), determined by multiplying the average concentration (ppm) for each one hour period by 4.15 x 10-5 M g/wscm per ppm (2.59 x 10-9 M = lb/wscf per ppm) where M = pollutant molecular weight, g/g mole (lb/lb mole) or M = 64 for sulfur dioxide and 46 for nitrogen oxides. |
| %O2ws | = | Oxygen volume (expressed as percent wet basis) determined with equipment specified under Section 303 of Rule 245. |
| Fw | = | A factor representing a ratio of the volume of wet flue gases generated to the caloric value of the fuel combusted. Values of Fw are given in Federal Register, Vol. 41, October 12, 1976, p. 44838, a.4. |
| Bwa | = | Proportion by volume of water vapor in the ambient air. Approval may be given for determination of Bwa by on site instrumental measurement provided that the absolute accuracy of the measurement technique can be demonstrated to be within +/ 0.7 percent water vapor. Estimation methods for Bwa are given in Federal Register, Vol. 41, October 12, 1976, p. 44838, a.5. |
| Bws | = | Proportion by volume of water vapor in the stack gas. |

SULFURIC ACID PLANTS: For sulfuric acid plants, the owner or operator shall:

(1) Establish a conversion factor three times daily according to the procedures of § 60.84 (b) of Chapter 1, Title 40, Code of Federal Regulations dated 10/6/75;

(2) Multiply the conversion factor by the average sulfur dioxide concentration in the flue gases to obtain average sulfur dioxide emission in Kg/metric ton (lb/short ton); and

(3) Report the average sulfur dioxide emission for each averaging period in excess of the applicable emission standard in the quarterly summary.

NITRIC ACID PLANTS: For nitric acid plants, the owner or operator shall:

(1) Establish a conversion factor according to the procedures of §60.73(b) of Chapter 1, Title 40, Code of Federal Regulations;

(2) Multiply the conversion factor by the average nitrogen oxides concentration in the flue gases to obtain the nitrogen oxides emissions in the units of the applicable standard;

(3) Report the average nitrogen oxides emission for each averaging period in excess of applicable emission standard in the quarterly summary.

ALTERNATE DATA REPORTING OR REDUCTION PROCEDURES: The Control Officer may allow data reporting or reduction procedures varying from those set forth in Rule 245 if the owner or operator of a source shows to the satisfaction of the Control Officer that his procedures are equally effective. Such procedures may include, but are not limited to the following:

(1) Alternative procedures for computing emission averages that do not require integration of data (e.g., some facilities may demonstrate that the variability of their emissions is sufficiently small to allow accurate reduction of data based upon computing averages from equally spaced data points over the averaging period).

(2) Alternative methods of converting pollutant concentration measurements to the units of the emission standards.

Last Formatted - Fall 1997

**(Maricopa County Air Pollution Control Regulations Appendix A (Fossil Fuel-Fired Steam Generators). Adopted by the Board on July 13, 1988)**

## APPENDIX 5: EVIDENCE OF PUBLIC NOTICE

(1) Maricopa County Air Quality Department Notice of Stakeholder Meeting April 10, 2017

(2) Maricopa County Board of Supervisors' Public Hearing Notice Published August 2, 2017 and August 9, 2017 in the Record Reporter and the Affidavit of Publication

(3) Maricopa County Board of Supervisors' Public Hearing Notice Published August 3, 2017 and August 10, 2017 in the Arizona Business Gazette and the Affidavit of Publication

## STAKEHOLDER MEETING NOTICE APRIL 10, 2017

Maricopa County Air Quality Department
Phone: 602.506.6010
Fax: 602.506.6985
Maricopa.gov/AQ
CleanAirMakeMore.com

### MARICOPA COUNTY AIR QUALITY DEPARTMENT
### NOTICE OF STAKEHOLDER MEETING

**Date and Time:** **Monday, April 10, 2017; 10:00 a.m.**
**Location:** **1001 N. Central Avenue, Phoenix, Arizona**
**Floor 5 Classroom**

The MCAQD is proposing revisions to the Maricopa County portion of the Arizona State Implementation Plan (SIP) to bring the SIP up-to-date with current MCAQD regulations. Specifically, the MCAQD is proposing the rescission (removal) from the Arizona SIP the following SIP approved rules: 22, 27, 28, 32 with Paragraphs A-H and J-K, 35, 41 Paragraphs A and B, 42, 74, and 81. At the same time, the MCAQD is proposing for inclusion in the Arizona SIP the following rules: 100, 210, 220, 230, 245, 270, 313, 322, 323, 510 and Appendix A. The draft "Revisions To Arizona's State Implementation Plan (SIP)" explains these proposals in more detail.

Please note: The MCAQD is not proposing any revisions to the rules themselves. The MCAQD is only proposing rescission (removal) and inclusion of rules in the Arizona SIP. The rules themselves are not proposed to be revised.

If you cannot attend the Stakeholder Meeting, please submit your comments to aqplanning@mail.maricopa.gov no later than Wednesday, May 10, 2017. If you would like to remotely attend this meeting, please follow these instructions:

For Go-To meeting "MCAQD SIP Revisions"
Please join my meeting from your computer, tablet or smartphone.
https://global.gotomeeting.com/join/894853765
You can also dial in using your phone.
United States: +1 (872) 240-3412
Access Code: 894-853-765
First GoToMeeting? Try a test session:
http://help.citrix.com/getready

**Background:** Congress established the basic structure of the Clean Air Act ("CAA") in 1970. The CAA requires the U.S. Environmental Protection Agency ("EPA") to establish national ambient air quality standards ("NAAQS") for common and widespread pollutants based on the most current science available. For areas that were determined to be in nonattainment of the NAAQS, the state was required to adopt federally enforceable state implementation plans (SIPs) in order to achieve and maintain air quality and meet the federally established air quality standards (the NAAQS).

In order to comply with the CAA, the MCAQD submitted rules under the jurisdiction of the MCAQD to the Arizona Department of Environmental Quality ("ADEQ"), the designated EPA contact, for inclusion in the original SIP submittal made to the EPA on January 28, 1972. Through the years, the MCAQD has revised the rules submitted in the original SIP and has submitted such revised rules for inclusion in the SIP.

1001 North Central Avenue | Suite 125 | Phoenix, Arizona 85004

The original MCAQD rules were one- and two-digit rules. In the 1980's, the MCAQD revised some of the rules to address reasonably available control technology ("RACT") and best available control technology ("BACT") in order to comply with the NAAQS. At the same time, the MCAQD reformatted and renumbered all of the rules using a three-digit numbering system. During this transition, some of the reformatted and renumbered rules were not included as SIP revisions. Likewise, some of the one- and two-digit rules were not rescinded (removed) from the Arizona SIP; this resulted in the overlap or conflict of requirements between the SIP approved rules and the current rules. The situation becomes more complex during the permitting process when the MCAQD is required to determine which rules, or parts of a rule, are federally enforceable and which are locally enforceable.

In April, 2016, the EPA contacted the MCAQD and offered to assist the MCAQD by analyzing each of the SIP approved one- and two-digit rules in order to update the SIP with the most current version of the applicable rule. The EPA analysis of each SIP approved rule specified how the rule did or did not meet the current SIP requirements under the CAA. The EPA also included their recommendation for updating the SIP to include current MCAQD rules. Through this collaboration with the EPA, the MCAQD will be formally submitting this request to the EPA through the ADEQ, for the rescission (removal) of the one- and two-digit rules from the Arizona SIP.

**Next Steps:** After the Stakeholder Meeting, the MCAQD will consider all comments received and then will schedule a public hearing before the Maricopa County Board of Supervisors. The MCAQD is anticipating such public hearing will occur in June 2017. You will be notified about the date, time, and location of such public hearing 30-days before such public hearing.

In accordance with §49-426 and §49-480.02 of the Arizona Revised Statutes (ARS), any person may submit to the Permitting Division Manager at 1001 N. Central, Suite 125, Phoenix, AZ 85004, written comments and/or a written request for a public hearing on the proposed permits within 30 days after the start of the public comment period. Any written comment shall state the name and mailing address of the person, shall be signed by the person, his agent, or his attorney and shall clearly set forth reasons why the permit should or should not be issued. Grounds for comment are limited to whether the proposed permit meets the criteria for issuance as prescribed in ARS §49-426, §49-480, or §49-481.

MCAQD will take reasonable measures to provide access to department services to individuals with limited ability to speak, write, or understand English and/or to those with disabilities. Requests for language interpretation services or for disability accommodations must be made at least 48 hours in advance by contacting: (602) 506-6443

MCAQD tomará medidas razonables para proveer acceso a los servicios del departamento para personas con capacidad limitada para hablar, escribir o entender Inglés y / o para las personas con discapacidad. Las solicitudes de servicios de interpretación del lenguaje o de alojamiento de discapacidad deben hacerse por lo menos 48 horas de antelación poniéndose en contacto con: (602) 506-6443

## MARICOPA COUNTY BOARD OF SUPERVISORS' PUBLIC HEARING NOTICE AND THE AFFIDAVIT OF PUBLICATION

Arizona Business Gazette
The business resource

PO BOX 194
Phoenix, Arizona 85001-0194
(602) 444-7315 FAX (602) 444-5901

AFFIDAVIT OF PUBLICATION

MC AIR QUALITY DIV
1001 N CENTRAL AVE SUITE 125
Phoenix, AZ 85004

Order # 0008709137 # of Affidavits 1

P.O # Notice of Public Hearing

Published Date(s):
08/03/17, 08/10/17

STATE OF ARIZONA
COUNTY OF } SS.

I, being first duly sworn, upon oath deposes and says: That I am the legal clerk of the Arizona Business Gazette, a newspaper of general circulation in the counties of Maricopa, Coconino, Pima and Pinal, in the State of Arizona, published weekly at Phoenix, Arizona, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates indicated.

Erika Faulkner

Sworn to before me this
10 TH day of
AUGUST 2017

Rose J Novak
Notary Public

ROSE J NOVAK
Notary Public – Arizona
Maricopa County
My Comm. Expires Mar 14, 2021

NOTICE OF PUBLIC HEARING
"REVISIONS TO ARIZONA'S STATE IMPLEMENTATION PLAN ("SIP")"

NOTICE IS HEREBY GIVEN that the Maricopa County Board of Supervisors will conduct a public hearing on September 6, 2017 at 9:30 AM. The Maricopa County Board of Supervisors is scheduled to conduct a public hearing to solicit comments on the submittal of "Revisions to Arizona's State Implementation Plan ("SIP")" to the U.S. Environmental Protection Agency ("EPA") for rescinding (removing) SIP-approved Maricopa County Air Pollution Control Regulations and including the revised and adopted versions of the Maricopa County Air Pollution Control Regulations. The public hearing will be held at the Maricopa County Board of Supervisors' Auditorium, 205 West Jefferson St., Phoenix, Arizona. A copy of the "Revisions to Arizona's State Implementation Plan ("SIP")" will be available at least 30 days prior to the hearing for public inspection at the offices of the Maricopa County Air Quality Department, 1001 N. Central Ave. Suite #125, Phoenix, Arizona 85004.
Pub: Aug 3, 10, 2017

THE RECORD REPORTER

~ SINCE 1914 ~

2025 N THIRD ST #160, PHOENIX, AZ 85004-1425
Telephone (602) 417-9900 / Fax (602) 417-9910

Publishing for Maricopa
and Pima Counties



MICHELLE MADA
MARICOPA AIR QUALITY DIV.
1001 N. CENTRAL AVE., STE, 125
PHOENIX, AZ - 85004-1942

RR# 3030715

INSERT LOGO HERE

NOTICE OF PUBLIC HEARING "REVISIONS TO ARIZONA'S STATE IMPLEMENTATION PLAN ("SIP")" NOTICE IS HEREBY GIVEN that the Maricopa County Board of Supervisors will conduct a public hearing on September 6, 2017 at 9:30 AM. The Maricopa County Board of Supervisors is scheduled to conduct a public hearing to solicit comments on the submittal of "Revisions to Arizona's State Implementation Plan ("SIP")" to the U.S. Environmental Protection Agency ("EPA") for rescinding (removing) SIP-approved Maricopa County Air Pollution Control Regulations and including the revised and adopted versions of the Maricopa County Air Pollution Control Regulations. The public hearing will be held at the Maricopa County Board of Supervisors' Auditorium, 205 West Jefferson St., Phoenix, Arizona. A copy of the "Revisions to Arizona's State Implementation Plan ("SIP")" will be available at least 30 days prior to the hearing for public inspection at the offices of the Maricopa County Air Quality Department, 1001 N. Central Ave. Suite #125, Phoenix, Arizona 85004.
8/2, 8/9/17

RR-3030715#

# AFFIDAVIT OF PUBLICATION

Reference #: 'Contract PQ1700

Notice Type: MCHRG - NOTICE OF HEARING

Ad Description: Public Hearing Notice - Revisions to AZ SIP-Recodification

I, Diane Heuel, am authorized by the publisher as agent to make this affidavit. Under oath, I state that the following is true and correct.

THE RECORD REPORTER is a newspaper of general circulation published Monday, Wednesday and Friday except legal holidays, in the County of Maricopa (also publishing for Pima County), State of Arizona. The copy hereto attached is a true copy of the advertisement as published on the following dates:

08/02/2017, 08/09/2017

State Of Arizona)
)ss.
County Of Maricopa)

Subscribed and sworn to before me on the 9th day of August, 2017

LEONA J. GIBSON
Notary Public - Arizona
Maricopa County
Expires 04/15/2019

*A000004521626*

## APPENDIX 6: COMPILATION OF PUBLIC COMMENTS

The MCAQD did not receive any public comments.